

Reexamining Military Acquisition Reform

Are We There Yet?

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Preface

This monograph examines “Acquisition Reform” (AR) and “Acquisition Excellence” (AE) initiatives undertaken in the U.S. Department of Defense (DoD) over the 1990–2003 period. Responding to direction from the Office of the Secretary of Defense (OSD), the U.S. Army and other Military Departments undertook efforts to implement the initiatives, where applicable, in their respective acquisition programs. They did this without regard to where the original ideas for the initiatives first emerged—whether from within their own programs or not. In addition to describing the Army’s experience with AR, therefore, the report also provides perspective on the nature and history of the AR movement in DoD overall, based on what happened in the 1990–2003 period.

This research, conducted over fiscal years 2002–2003, was sponsored by the Assistant Secretary of the Army for Acquisition, Logistics, and Technology, [ASA(ALT)], with project oversight provided by the Office of the Director for Policy and Procurement within the ASA(ALT) organization. The findings should be of interest to those in the U.S. Army and elsewhere in DoD who are continuing to seek ways to achieve greater responsiveness, effectiveness, and efficiency in the defense acquisition process.

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Summary

Research Objectives and Research Approach

The problems of reforming the defense acquisition process and evaluating the effectiveness of reforms have stimulated many initiatives and studies over the past several decades. The reexamination of acquisition reform (AR) presented here adds to that record.

Our research approach for reexamining AR has two parts. First, because the term "acquisition reform" covers a wide range of activities and can mean different things to different people, we first looked at what the term *means*—i.e., what is AR "about?" Our approach to that question was to define what AR *is* by saying what it *did*. That is, rather than trying to say what AR is by describing it in general or abstract terms, we describe it by listing the initiatives that were launched in its name. Following that definitional work, we then interviewed program management personnel in the government (specifically in the Army) and in industry to learn how the AR initiatives of the 1990s have been implemented in the field and how they, as participants in the day-to-day business of the acquisition process, view the results.

The reader should understand from the discussion above that we have *not* attempted in this work to evaluate how AR initiatives have affected *actual program outcomes*—i.e., the cost, schedule, and performance results for systems in the acquisition process. Although some anecdotal information on program outcomes emerges from the historical research and interviews, we have not attempted in this research to do a systematic analysis of the actual effects that AR has had on program outcomes. While such program outcomes will ultimately determine whether the AR movement—both as it was pursued in the 1990s and as it is still being pursued¹—has been worthwhile,

¹ "Acquisition reform" in the 2001–2004 period is closely bound up with efforts to effect DoD "transformation." As a result, the scope of AR in its current incarnation now includes, in addition to new acquisition policies, new procedures announced by the Joint Staff for identifying "joint capabilities" needs, and new efforts by the Office of the Secretary of Defense (OSD) to change how DoD's planning, programming, and budgeting process works. The fact that this transformation of the "extended" acquisition process continues to be viewed as a goal rather than an accomplished fact, combined with the reality that external events and politics will always be factors affecting defense acquisition, suggests that the most realistic way to view "acquisition reform" within DoD is to recognize that it will always be a work in progress.

measuring those effects in ways that are objective and consistent over time is notoriously difficult. Every program is unique, program baselines change, the defense environment is constantly changing, and program outcomes are measured across multiple interdependent dimensions that reflect those changes as they occur. We have not looked, therefore, at the “actual-program-effects” question. Rather, we have assumed that by looking at what the AR movement “was” in the 1990s (by describing the initiatives launched under its name) and then by letting acquisition personnel describe in their own words how their work was affected by the initiatives, that we would be providing information that would help the Army and the Department of Defense (DoD) understand what the AR movement has and has not accomplished in terms of changing the way the acquisition process works. Perhaps the most important lesson that emerges from the research we *have* done—the lesson that this report is intended to communicate—is that rather than being something that will someday be “finished” in the DoD, AR is perhaps better viewed as something that will always be a work in progress.

Defining “Acquisition Reform”

From Acquisition Reform to Acquisition Excellence

Modern acquisition reform (AR) in the U.S. Department of Defense began in the early 1990s. At that time, defense leaders, in response to recommendations made by the Packard Commission in 1986, and the internal Defense Management Review it stimulated, began formulating specific actions to make the overall process more responsive, effective, and efficient (“faster, better, cheaper”).² Over the course of the 1990s, a large number of such actions were launched to “implement” AR (63 distinct AR initiatives are described in this report). Most of the initiatives were first launched in the 1994–1996 period after being developed by the Office of the Secretary of Defense (OSD) working jointly with the service acquisition organizations, but new initiatives continued to be launched after that, reflecting a continuing interest in reform, even as leadership teams changed following the administration changes in 1997 and 2001. The reform initiatives affected virtually every phase of the “extended” acquisition process as it occurs within DoD (i.e., within the Army and the other com-

² The “faster, better, cheaper” goals of the AR movement in the 1990s flow directly from how the Packard Commission chose to describe defense acquisition problems in its June 1986 report:

All of our analysis leads us unequivocally to the conclusion that the defense acquisition system has basic problems that must be corrected. These problems are deeply entrenched and have developed over several decades from an increasingly bureaucratic and over-regulated process. As a result, all too many of our weapon systems cost too much, take too long to develop, and by the time they are fielded, incorporate obsolete technology.

The Defense Management Review (DMR) was initiated by Secretary of Defense Dick Cheney in the first Bush administration in response to the Packard Commission findings.

ponents)—from “requirements determination” (now called “capabilities development”), to the formal acquisition process itself, to ongoing support for systems after fielding.

By the end of the 1990s, the AR movement had come to recognize that if the new reform initiatives were to have staying power, two additional things needed to be done: official DoD acquisition policy had to be rewritten to institutionalize the new approaches, and responsibility had to be fixed somewhere in the system so that a specific and identifiable individual would always be present and “accountable” for acting on the initiatives, monitoring progress, and keeping things on track. To accomplish this, AR policymakers arranged for the production of a revised, “AR-driven” version of DoD’s official acquisition policy (the 5000 Series), and they designated program managers³ (PMs) as the accountable parties who would henceforth be “responsible” for the “total life-cycle system management” of all DoD systems—including all new systems still in acquisition, as well as all old (“legacy”) systems already in the field.

With the administration change in 2001 and its introduction of the term Acquisition Excellence (AE) to replace Acquisition Reform, DoD leaders signaled their desire to take AR even further. They moved beyond the 1990s emphasis on *process* reform to placing greater emphasis on achieving outcomes (particularly faster procurements) by actively applying the new approaches now available as a result of AR. Indeed, under the AE regime, PMs are now hearing more about *what* they are supposed to produce and less about *how* they are supposed to produce it (an approach consistent with one of the basic tenets of AR itself). As a result, the central role and responsibilities of PMs, which had been emphasized in the latter days of the AR movement, has been reaffirmed and reinforced under AE in the 2000s. Indeed, formal DoD acquisition policy is now explicitly telling PMs to be even more aggressive than they were in the 1990s in their efforts to push the acquisition system to even higher levels of performance.⁴ Notwithstanding this new emphasis on achieving out-

³ Program managers (PMs) are the individuals in DoD charged with acquiring new equipment and weapon systems, once an official decision has been made to do so. PMs in the Army are also sometimes referred to as “material developers.” In the Army, the PM designation is simultaneously used to refer to program managers, project managers, and product managers. As a general rule in the Army, a program manager is a general officer or from the civilian Senior Executive Service (SES); a project manager is a colonel or GS 15; and a product manager is a lieutenant colonel or GS 14. This distinction between PMs is unique to the Army and does not apply to the other services or within industry. Like their counterparts in the other services, however, Army PMs report to program executive officers (PEOs), who are part of the acquisition management chain that extends up through the respective service secretariat: in the Army’s case, to the Assistant Secretary of the Army for Acquisition, Logistics, and Technology, the ASA(ALT).

⁴ For example, the latest DoD 5000.1 Directive, *The Defense Acquisition System* (May 12, 2003), says:

Responsibility for acquisition of systems shall be decentralized to the maximum extent practicable. The Milestone Decision Authority (MDA) shall provide a single individual with sufficient authority to accomplish MDA-approved program objectives for development, production, and sustainment. The MDA shall ensure accountability and maximize credibility in cost, schedule, and performance reporting.

It also states:

comes, however, an important message of this report is that many Army program managers think they still do not have (nor do they believe the Army is yet fully prepared to give them) the leverage over resources and management authority necessary to act on that guidance and take the risks they are being told—at least in the policy language—to take.

Different Historical Meanings of Acquisition Reform

The term “acquisition reform” has meant different things at different times in the DoD. In the 1980s, while the Cold War was still being waged, it typically meant (particularly to the press and Congress) putting controls in place to reduce “waste, fraud, and abuse” (both real and perceived) in transactions with contractors. It was not particularly focused on improving the performance of the acquisition system.⁵ There were, of course (as the Packard Commission noted), concerns about the growing cost of new weapon systems, the long lead times necessary to bring them on board, and the difficulties in achieving full “required performance”—but those concerns did not produce implementation efforts on the same scale as the AR movement in the 1990s. In the 1990s, the end of the Cold War and the natural political pressures it created to deliver a “peace dividend” led to attempts to make the acquisition process more responsive, effective, and efficient.

Because this report focuses mainly on the 1990s, all 63 of the AR initiatives the report catalogs are concerned with how to make the AR process “faster, better, and cheaper.”⁶ Only one of those⁷ can be connected in a direct way with the earlier AR goal of reducing “waste, fraud, and abuse” in defense contracts.⁸

There is no *one* best way to structure an acquisition program to accomplish the objective of the Defense Acquisition System. MDAs and PMs shall tailor program strategies and oversight, including documentation of program information, acquisition phases, the timing and scope of decision reviews, and decision levels to fit the particular conditions of the program consistent with applicable laws and regulations and the time-sensitive nature of the capability need.

⁵ By the “performance” of the acquisition system, we mean the system’s ability to produce and deliver to the fighting forces weapon systems having specified performance capabilities in a “timely” way and for “reasonable” cost. By the 1990s, these goals had become the priorities for the acquisition process.

⁶ This phrase became the commonly used shorthand in the 1990s for describing the goal of the modern AR movement, which was to improve the performance of the acquisition system (as defined in the preceding footnote).

⁷ The “Past Performance Data” initiative made the collection and use of contractor past-performance data a significant factor in the source-selection process. The initiative was intended to create incentives for improving program cost, schedule, and performance outcomes by making it easier to identify when those outcomes had and had not been achieved in past contracts, and then taking that information into account in the awarding of new contracts. In practice, contractors generally appear to view the Past Performance Data initiative as being more about “stick” than “carrot,” perhaps reflecting (at least to some extent) the continuing challenges that many if not all weapon-system builders continue to face in meeting contractual cost, schedule, and performance targets.

⁸ As noted by a reviewer, the need for changes in the requirements determination process (which precedes formal acquisition) and the budgeting process (i.e., the annual resourcing process used to obtain and allocate obligation

Policy Follow-Through on AR Initiatives

The policy follow-through on the AR initiatives of the 1990s appears to have been mixed. We found that many of the 63 AR initiatives from the 1990s were not specifically described, mentioned, or referenced in any way in the June 2003 version of the “5000 Series” acquisition policy.⁹ In particular, significant gaps existed in the references program managers could find in the 5000 Series about the new AR approaches they can take, or (more important) ask *others* to take, to make the acquisition process work better.

An important aspect of the AR movement that *has* been explicitly carried over into the AE regime is recognition of the need to continue to expand and deepen awareness and education about AR among the *entire* acquisition workforce (i.e., not just PMs and their staffs, but others upon whom PMs rely, including contracting, engineering, test and evaluation, financial, and logistics personnel). The need for expanded education is particularly acute because of the imminent loss (for demographic reasons) of large numbers of experienced acquisition personnel from the acquisition workforce, and what that implies for how successfully AR approaches may (or may not) be applied in the future.¹⁰ In particular, because the new AR approaches tend to call for the application of judgment and common sense rather than relying on rules and fixed procedures, they are most likely to be successful when seasoned judgment is applied in their use. But much of the source of that seasoned judgment, namely, many of the most experienced people in the acquisition workforce both in the Army and across DoD, will become eligible for their federal retirement in the next several years. When those experienced people begin to leave, many of their junior colleagues, very few of whom will have been in the workforce long enough to have their own first-hand experience of how acquisition worked *before* AR in the 1990s, will find it increasingly difficult to obtain wise counsel on where, when, and how to apply (or *not* apply) AR methods in their programs. As a result, the *educational* challenges associated with AR are not only very much still present today, but they will *increase* in

authority) can also be viewed as being “part” of AR. We have not taken that approach, in order to keep reasonable bounds on the scope of our discussion. The point is valid, however. Indeed, in the current (Rumsfeld) administration, the idea of Acquisition Excellence has been subsumed into the much larger idea of DoD transformation, major components of which include overhauling both the requirements-generation process and the programming-and-budgeting process.

⁹ This *includes* consideration of the June 2001 5000.2-R document containing “Mandatory Procedures,” which has now been reclassified as a “guidebook” offering “non-mandatory guidance on best practices, lessons learned, and expectations.”

¹⁰ The most experienced people in the acquisition workforce, both in the Army and across DoD, are “baby boomers” who will be eligible for their federal retirement within the next few years. The GAO has reported, for example (see GAO-01-509, April 2001), that 53 percent of the government’s program management (GS-340) workforce as it existed in FY98 will be eligible to retire by the end of FY06. This situation is part of a larger phenomenon affecting the workforce for the entire government—and is the subject of the Bush administration’s “Strategic Management of Human Capital Initiative”; see <http://apps.opm.gov/HumanCapital>.

the future, as the acquisition system loses significant portions of its experienced human capital and the “corporate memory” that goes with it.

As noted, both the AR and AE efforts recognize this challenge and include deliberate efforts to expand and strengthen the educational mechanisms available to support and sustain the acquisition workforce. Central among these mechanisms is the Defense Acquisition University (DAU), DoD’s “corporate university” for acquisition professionals. Our review of the DAU curriculum (performed with DAU’s help) shows that DAU has done a good job keeping up with the multitude of AR initiatives launched in the 1990s, particularly in the Defense Systems Management College (DSMC) courses it offers for program managers and their staffs. The DAU’s capability to provide an equivalently comprehensive view of AR to the workforce in acquisition-related fields (i.e., people in contracting, engineering, logistics, audit, and financial offices, for example) continues to be expanded.¹¹

Stakeholder Views of Army Acquisition

Moving from the AR movement of the 1990s itself to what stakeholders at Army headquarters, in the Army program management community, and in industry think about AR, we find an encouraging consistency across the three groups that makes it easier to see the kinds of steps the Army needs to consider in order to keep the Army acquisition process moving forward.

In general all three communities—headquarters, the Army project management community, and industry—were supportive of the goals of AR and felt that some progress had been made. The clear message that emerges from our interviews, however, is that all three communities believe that much more needs to be done before the acquisition process can be said to be truly reformed. Indeed, several of the senior people we talked to expressed concerns about what conventional wisdom has tended to view as being among the most “obviously necessary” AR reforms—e.g., the elimination of military specifications, the relaxation of different types of data requirements placed on contractors, and the push to outsource as many system-support functions as possible. Senior people we talked to, both in the Army and (although less so) in industry, expressed concerns that some of these initiatives could backfire down the road, when DoD finds itself having to support the systems it is buying over the very long life spans that military systems tend to have once they have been bought and fielded.

Many of those same senior people also expressed concerns that unless ways are found to preserve and pass on some of the hard lessons they have learned through

¹¹ The article “Defense University Revamps Its Acquisition Training Program” in the April 2002 issue of *National Defense* magazine provides a good overview of the changes that are continuing to be pursued at DAU.

experience—e.g., about the need to find the right *balance* between cost, schedule, and performance, about the dangers of performance-based contracting when it is rushed and when less-experienced contracting officers are involved, and about the value that rules and regulations can sometimes have for less talented or less seasoned workers who will always be present in the workplace—there is a real danger that some of what was put in place under the banner of AR in the 1990s may cause old problems to return, i.e., the “waste, fraud, and abuse” problems (both real and perceived) that motivated much of the reform effort in the 1980s.

There is no question that under AR (and now even more under AE), PMs are being asked to “be more innovative” and “take more risks.” But our interviews with program management personnel in both the Army and industry clearly reflect a strongly held view at those levels that very little in terms of how *resources* (money) are allocated and controlled, either within the Army or within the DoD, has changed in a way that gives PMs any *more* reason to take those extra risks than they had *before* AR. In this vein, Army PMs uniformly expressed the view that it makes no sense for them to be made “responsible and accountable” for “total life-cycle system management” *unless* new resourcing methods are put in place that will give them the resource leverage and management authority they need to be able to deliver on that responsibility and legitimately be held accountable. To be sure, some of the Army PMs we talked to *have* found ways to get *some* of that leverage and authority. In some cases (e.g., for certain large legacy systems), they were able to succeed because they were a “big enough” customer to get the support system’s attention. In other cases (e.g., for systems still under contract—either in acquisition or under contractor-logistics-support), they were able to do it simply because they still controlled the contracts. Even in these cases, however, the PMs were able to get leverage and authority only by dint of their own initiative and persistence—*not* because established procedures were in place that made those things happen.

On the education front, headquarters personnel, the Army program management community, and defense contractors all agree that more education and training is needed to bring *all* the communities involved in acquisition—i.e., the research and development communities, the requirements communities, the contracting, testing, finance, and logistics communities, and all the other communities that can influence how acquisitions turn out—to the same level of understanding and appreciation of AR as the PM community has been brought to.

Finally, a general perception that emerged from our interviews is that people in both government and industry see the modern AR movement as an indication of a new willingness on the government’s part to “trade off” some system performance (i.e., some system performance characteristics that, before AR, would have been classified as “required” and thus non-negotiable) for improvements in the schedule or the cost (or both) for new systems. This is particularly so under the new AE regime with its increased emphasis on getting “capabilities” into the hands of users faster

through “evolutionary acquisition.” We would note that this shift in what the government is willing to accept doesn’t necessarily make the job of PMs any easier; it simply changes the relative weights they must apply in attempting to balance cost, schedule, and performance.

Clearly the AR movement has changed the acquisition process. In the aftermath of AR, both industry and government are having to learn (and are still learning) new ways to interact. The hope on both sides—as yet still generally unrealized—is that as that learning takes place, both sides will eventually benefit. The government is hoping it will get new systems—with at least some useful new capabilities—sooner, for reasonable costs. Providers in industry are hoping they will be able to earn returns good enough to pay their employees good wages and keep their shareholders and investors satisfied. If both of these things happen—and the acquisition process can avoid sliding back into another waste, fraud, and abuse cycle because things have gotten too “relaxed” under AR—the AR movement will have done some good. Will that happen? As the Chinese leader Chou En Lai once said when asked how the French Revolution had affected world affairs: “It’s too soon to tell.”

Three Action Items for Army Acquisition

Below we list three actions for Army acquisition to consider that emerge from this reexamination of AR:

1. Find ways to increase the access Army personnel have to education about what AR has made it possible to do in the acquisition process.
2. Find ways to make Army acquisition policy more supportive for Army PMs who are trying to put AR into practice.
3. Find ways to make resources available to Army PMs who are being asked to take program risks.

The common thread tying these actions together is that Army acquisition leaders must find *new* ways to motivate and lead the Army acquisition workforce, across *all* of its functional areas, if the latter are to become *fully* engaged in implementing the ideas of AR. These “new ways” will require Army acquisition leaders to take their own kinds of “risks”—by fighting for resources rather than simply passing on unfunded policy mandates from above; by backing PMs up with full chain-of-command support even when the PMs may have taken risks and failed; and by leading by example in high-level interactions with contractors to show how AR ideas can lead to better program results when the will is there.

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While we have tried to ensure that the facts presented here are accurate and that our presentation and discussion of the opinions and views of others correctly capture what we were told, in the end the responsibility for any errors or misstatements in this report lies with the authors.

Glossary

AAC	Army Acquisition Corps
AAE	Army Acquisition Excellence
AAR	Army Acquisition Reform
ABA	American Bar Association
ADM	Acquisition Decision Memorandum
AE	Acquisition Excellence
AFATDS	Army Field Artillery Tactical Data System
AI	Acquisition Initiative
AIA	Aerospace Industries Association
AL&TWF	Acquisition, Logistics, and Technology Workforce
AMC	Army Materiel Command
AR	Acquisition Reform
ASA(ALT)	Assistant Secretary of the Army for Acquisition, Logistics, & Technology
ASA/RDA	Assistant Secretary of the Army for Research, Development, and Acquisition
ASC	Army Acquisition Support Center
ATEC	Army Test and Evaluation Command
AT&L	Acquisition, Technology, and Logistics
BCF	Business, Cost Estimating, and Financial Management
C&TD	Concept & Technology Development
C/SCSC	Cost/Schedule Control System Criteria
CAIG	Cost Analysis Improvement Group

CAIV	Cost as an Independent Variable
CDE	Commercial Derivative Engine
CDRL	Contract Data Requirements List
CDSC	Curriculum Development and Support Center
CFMS	CONUS Freight Management System
CIO	Chief Information Officer
CJCS	Chairman Joints Chiefs of Staff
CON	Contracts
CoP	Community of Practice
CORM	Commission on Defense Roles and Missions
CPAF	Cost Plus Award Fee
DAB	Defense Acquisition Board
DAPP	Defense Acquisition Pilot Program
DARPA	Defense Advanced Research Projects Agency
DAU	Defense Acquisition University
DAWIA	Defense Acquisition Workforce Improvement Act
DCAA	Defense Contract Audit Agency
DCMA	Defense Contract Management Agency
DCMC	Defense Contract Management Command
DFARS	Defense Federal Acquisition System Regulations Supplement
DMR	Defense Management Review
DoD	Department of Defense
DoD IG	DoD Inspector General
DPSC	Defense Personnel Support Center
DRI	Defense Reform Initiative
DRMD	Defense Management Report Decision
DSMC—SPM	Defense Systems Management College—School of Program Managers
DUSD(AR)	Deputy Under Secretary of Defense for Acquisition Reform
E&T	Engineering and Technology

EA	Evolutionary Acquisition
ECP	Engineering Change Proposal
EDI	Electronic Data Interchange
EIA	Electronic Industries Alliance
ESI	Enterprise Software Initiative
FAR	Federal Acquisition Regulation
FARA	Federal Acquisition Reform Act
FASA	Federal Acquisition Streamlining Act
FCS	Future Combat Systems
FSCATT	Fire Support Combined Arms Tactical Trainer
HEMTT	Heavy Expanded Mobility Tactical Truck
IMPAC	International Merchants' Purchase Authorization Card
IPT	Integrated Planning Team, Integrated Process Team, Integrated Program Team, Integrated Project Team
ISO	International Organization for Standardization
ITAS	Improved Targeting and Acquisition System
ITMRA	Information Technology Management Reform Act
JCIDS	Joint Capabilities Integration and Development System
JDAM	Joint Direct Attach Munition
JIT	Just in Time
JPATS	Joint Primary Aircraft Training System
L&S	Logistics and Sustainment
LCCE	Life Cycle Cost Estimate
LCCS	Life Cycle Contractor Support
MAIS	Major Automated Information System
MATDEV	Material Developer
MDAP	Major Defense Acquisition Program
MIPS	Modified Integrated Program Summary
MLRS	Multiple Launch Rocket System
NDAA	National Defense Authorization Act

NSIA	National Security Industrial Association
OMB	Office of Management and Budget
OSD	Office of the Secretary of Defense
OT	Other Transaction
OT&E	Operational Test and Evaluation
OTA	Other Transaction Authority
OUSD(AT&L)	Office of the Under Secretary of Defense (Acquisition, Technology and Logistics)
PBD	Program Budget Decision
PBL	Performance Based Logistics
PEO	Program Executive Officer
PLM	Performance Learning Model
PM	Program Manager
PMOLCS	Program Manager Oversight of Life-Cycle Support
PPBE	Planning, Programming, Budgeting, Execution
PPBS	Planning, Programming, and Budgeting System
PPCG	Pilot Program Control Group
RDEC	Research, Development, and Engineering Center
RDT	Rapid Deployment Training
RFP	Request for Proposal
RIT	Rapid Improvement Team
RTOC	Reduction in Total Ownership Costs
SAR	Selected Acquisition Report
SASC	Senate Armed Services Committee
SCA	Supply Chain Alliance
SEI	Software Engineering Institute
SES	Senior Executive Service
SoS	System of Systems
SPI	Single Process Initiative
TDP	Technical Data Package

TINA	Truth in Negotiation Act
TLCSM	Total Life-Cycle System Management
TRAMS	Transportation Automated Management System
TSPR	Total System Performance Responsibility
USD(A&T)	Under Secretary of Defense (Acquisition and Technology)
USD(AT&L)	Under Secretary of Defense (Acquisition, Technology, and Logistics)

Introduction

How Well Has Acquisition Reform Succeeded?

The Department of Defense (DoD) has a long history of seeking improvements in the way it goes about buying new weapon systems. In the past two decades alone, DoD has mounted two distinct movements that each carried the title “Acquisition Reform” (AR).¹ In the 1980s, reform efforts focused on reducing “waste, fraud, and abuse” in the system. In the 1990s, the emphasis shifted toward trying to make the acquisition process more responsive, effective, and efficient—i.e., “faster, better, cheaper.”² Initiatives launched in the 1990s to support the latter goals included legislative changes to allow for more streamlined procurements, reductions in internal paperwork and required reviews, greater use of commercial practices, and expanded attempts to use the private sector to do more of the jobs traditionally done by government. DoD also sought ways to make it easier and more attractive for companies that previously had never worked for the DoD to begin pursuing military contracts; this was seen as a way to allow the military to tap into the expanded creativity and

¹ It should be noted that during the period of active research for this study (FY02–03), the character of the effort to change how the acquisition system operates changed a third time, shifting away from an emphasis on process reform as pursued in the 1990s and toward the achievement of certain outcomes (e.g., greater credibility and effectiveness in acquisition and logistics-support processes, a “healthier” industrial base, rationalization of weapon systems and infrastructure with defense strategy, and the “leveraging” of technology to create new warfighting capabilities) as defined under a new philosophy called Acquisition Excellence (AE), which was first introduced by DoD leaders in mid-FY01 (and which we discuss further later in the report). Our general use of the phrase “acquisition reform” throughout the report, therefore, should not be taken as an indication that we have ignored the transition from AR to AE but rather that our study is primarily a retrospective examination of the efforts that were launched in the days when reform of the acquisition *process* was an explicit goal and objective of DoD management.

² During the 1990s, the “faster, better, cheaper” expression became the widely used shorthand for describing the three distinct objectives that the acquisition process has always implicitly had and that it would like, in theory at least, to be able to accomplish simultaneously (but that traditionally have always had to be traded off against each other in execution). “Faster” is about getting needed equipment into the hands of users more quickly than has been the case in the past. “Better” is about increasing the likelihood that delivered equipment fully meets all of its performance specifications. “Cheaper” is about doing a better job of controlling and reducing the costs of new systems as much as possible, taking into account not only the initial purchase price for the system but also what it is likely to cost to operate, maintain, and support it over its entire “life cycle.”

innovative prowess in developing and applying new technology that had come to the fore in the private sector, particularly in the 1990s.

As a result of the AR movement, the acquisition process in the Army, and across all of DoD, has undergone significant change. At the same time, however, it has become apparent that many of the hoped-for benefits of AR have not been fully realized. A recent RAND study on the assimilation of information technology in the military, for example, found that aerospace executives believe more effort is still needed before the benefits of AR will be fully realized at the project level.³ As another example, RAND Arroyo Center in 1996 undertook a study to determine attitudes among Army acquisition personnel toward reform and to identify the effects of those attitudes on behavior. The study highlighted the importance of carefully targeted training and the need for more effective use of integrated product teams, both internally and in partnership with industry, to help win wider acceptance for reform. The study noted that integrated product teams are particularly important because they can help break down the functional barriers that impede change.⁴

Effective Reform Must Be Pursued at Multiple Levels

For reform to be successful, it needs to be pursued uniformly at the headquarters, program management, and contractor levels. For that to happen, reforms have to be formulated, communicated, and understood in consistent ways across the entire acquisition “chain”—both within and outside DoD. Without understanding and acceptance across that chain, even the best reform efforts will continue to experience implementation problems.

The need to ensure that its acquisition process is working well is particularly critical to the Army now, given the deliberate effort the Army is making to change itself in the face of the new national security challenges facing the United States. In particular, the commitment the Army has made to “transform” itself over the next twenty years—to a “future force” populated with new forces and weapon systems organized in nontraditional ways and operating under new doctrine⁵—is already creating demands that go well beyond what the acquisition process has traditionally

³ Lewis, Rosalind, Elliot Axelband, Jeffrey Drezner, and Iris Kameny, “*Assimilation of Information Technology for DoD in the 21st Century: Industry Suggestions*,” unpublished RAND research, 2001.

⁴ Dertouzos, Schmidt, Benjamin, and Finegold (1998).

⁵ The Army has already recognized that its planned Future Combat System (FCS)—a “system of systems” (SoS) set of platforms operating as the single, networked, tactical entity at the heart of the future force—will drive changes in Army operating doctrine, unit organization, training, materiel support, personnel skills, leadership roles, and infrastructure.

faced.⁶ One clear prerequisite for meeting its future acquisition needs successfully, therefore, is for the Army to understand which acquisition reform initiatives have “taken hold” and which haven’t, so that it can have some idea of what to expect as new acquisitions move forward.

This Study Focuses on Past Acquisition Reform Efforts as a Means of Understanding Possible Future Directions

To explore these issues in more detail, the Army asked RAND Arroyo Center to undertake a review of the Army’s past acquisition reform efforts. The objective was to understand how well they have been implemented—operating under the assumption that, at least on their face, all the reform ideas had at least the potential to lead to improvements in some aspect of program outcomes (either in cost, schedule, or system performance, or some combination thereof). Our guidance was to take a broad view of acquisition reform, but with a special focus on AR efforts initiated during the 1990s. We have sought to understand both the nature of the reform initiatives that were launched as well as the potentially diverse ways in which they have been understood and accepted in the headquarters, program management, and contractor communities.⁷

We began by assembling an annotated list of AR initiatives launched in the 1990s. We then analyzed the initiatives in several ways. For example, we classified them according to the major themes of AR in the 1990s, in relation to the *new* goals of “Acquisition Excellence” (AE), as formulated by the current DoD administration.⁸ We have determined the extent to which the AR initiatives of the 1990s have been captured and expressed in the DoD’s “5000 Series” policy guidance.⁹ We have also

⁶ Even though the acquisition by the Army of the FCS, along with the new, “network-centric” warfighting capabilities that define it, is still in the early stages, it is already posing operational, system, and technical integration challenges that go well beyond what the Army acquisition system has generally confronted in the past.

⁷ The Army’s interest in a review of AR is consistent with a response that E.C. “Pete” Aldridge, the Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)), gave in an interview published in the July–August, 2001 issue of *PM Magazine*. Asked “Do you see a need to assess how well the AR initiatives of the last seven years have taken root?” Aldridge said, “Yes, I think an assessment of how well we’ve done would be valuable. You always learn something from the past, and if you have something to show in the way of AR lessons learned over the past seven years, I’d like to see it.”

⁸ Aldridge became the USD(AT&L) in the spring of 2001.

⁹ The “5000 Series” documents contain the official, DoD-wide policy governing the acquisition of military systems and equipment by all the military services. The version of the 5000 Series we refer to throughout this report, unless otherwise noted, is the one released in draft form by OSD in 2001 and finalized in April 2002. The 5000 Series has undergone multiple revisions since its first appearance in the 1970s. The explicit intent of the 2002 version was to update existing 5000 Series policy to capture and institutionalize changes resulting from the AR efforts in the 1990s. We note our reference to the 2001 version because that version, even though it only became official in April 2002, was subsequently cancelled by OSD in October 2002 (after we had completed our analysis)

examined the extent to which AR initiatives have been incorporated into the curriculum of the Defense Acquisition University (DAU).¹⁰

Following the classification analysis, we turned our effort toward understanding how AR initiatives have been viewed and evaluated by personnel at the headquarters, program management, and contractor levels. To gain that understanding, we interviewed key personnel in each of those communities in order to learn their views and perspectives about the successes and failures of AR in the 1990s and the directions they would like to see taken in the future.

The report is divided into six chapters. Chapter Two lists the acquisition reform initiatives of the last decade and categorizes them according to various objective criteria. Chapter Three then presents the results of our interviews with key personnel at the headquarters level. Chapter Four focuses on the findings from our interviews with program management personnel in the Army. Chapter Five presents the results of our interviews with contractors. Chapter Six brings together our conclusions and offers three "actionable items" for consideration by the ASA(ALT).

Appendix A lists major events in the history of AR. Appendix B briefly describes each of the 63 initiatives, while Appendix C lists the initiatives in chronological order and Appendix D groups the initiatives thematically. Appendix E provides direct quotations gathered during the interviews, while Appendix F provides information on how to determine whether and where particular AR initiatives are covered in Defense Acquisition University (DAU) courses.

and is being replaced by an even newer version, which was still in draft form as of January 2003. This newest version of the 5000 Series still preserves much of what was in the 2001 version of the 5000.1 Directive and 5000.2 Instruction but in substantially compressed form. The newest version also "reclassifies" the 5000.2-R Regulation, which was "mandatory" in the 2001 version, as a "non-mandatory" guide containing information for program managers on "best practices, lessons learned, and expectations." The newest version of the 5000 Series was finalized on May 12, 2003, at which point it became the new, official 5000 Series policy.

¹⁰ The Defense Acquisition University (DAU) is DoD's corporate-level educational and training institution for military and civilian personnel working in defense acquisition and acquisition-related functions. The Defense Acquisition Workforce Improvement Act of 1990 (DAWIA) required the formation of DAU, which commenced operations under that name in 1992.

Acquisition Reform Initiatives

In this chapter, we provide an overview of acquisition reform (AR) in the past decade. We introduce a list of 63 specific AR initiatives, which we assembled from various sources to serve as our way of understanding and defining what AR in the 1990s was “about.” We then examine and classify the initiatives to see how they sort themselves out according to various categories—e.g., major theme, acquisition function affected, coverage in acquisition policy, inclusion in the curriculum at the Defense Acquisition University (DAU), and other perspectives. We use these categories as a way to draw initial conclusions about patterns of emphasis, policy follow-through, educational implications, and other indicators of what AR in the 1990s did and did not accomplish. Our conclusions are based on simple counts of how the initiatives sort out.

These findings help us understand how acquisition reform has evolved over more than a decade, in terms of both how individual initiatives have been conceived and how effectively they have been implemented. This chapter will thus establish relevant background for the discussion of interviews with headquarters, Army project managers, and industry, which follow respectively in Chapters Three, Four, and Five.

What Is Acquisition Reform?

Our first task in this study was to decide what “acquisition reform” *means*. Our preliminary research indicated that although an enormous amount of effort and discussion concerning acquisition reform had taken place over the last decade, the term itself was never consistently well-enough defined to be able to say definitively that *this* action was an example of AR but *that* action wasn’t. As a result, we elected to treat “acquisition reform” as being defined by whatever specific initiatives we could identify that were formally launched and pursued under the banner of “Acquisition Reform.” In effect, we have taken the view that AR in the 1990s “was” what AR “did.”

The AR Timeframe

In determining the scope of our analysis, we first examined the key milestones in acquisition reform over the past decades. Defense acquisition reform has a long pedigree, extending back to the Defense Reorganization Act of 1958 and the Commission on Government Procurement in the early 1970s, as well as the Grace Commission of 1983, all of which have been extensively commented upon by others.¹ In the late 1980s, responding to recommendations of the Packard Commission² and the ending of the Cold War, both the executive branch and Congress again became interested in reform. That interest manifested itself in a major "Defense Management Review" (DMR) report by the Secretary of Defense to the President in 1989 and in congressional reaction to that report—as reflected, for example, in Section 800 of the National Defense Authorization Act for FY 1991, which directed DoD to organize a panel of representatives from government, industry, and academia to make recommendations for the modification of laws affecting DoD acquisitions.³ That panel, known as the "Section 800 Panel," issued its recommendations in 1993, identifying more than 600 statutes applying to DoD acquisition and recommending almost 300 laws for repeal or change. In 1993, Vice President Gore's National Performance Review made similar recommendations for acquisition reform. Most of the AR initiatives launched in the 1990s have their origins in these efforts.

Still, even as the AR movement gathered steam, several important reform initiatives had already been launched in the late 1980s and early 1990s, including the introduction of the DoD purchase card in 1989⁴ and the move toward performance-based service contracting in 1991.⁵ In February 1994, however, Secretary of Defense

¹ See, for example, *Defense Acquisition: Major U.S. Commission Reports (1949–1988)*, prepared for the use of the Defense Policy Panel and Acquisition Policy Panel of the Committee on Armed Services, House of Representatives, 100th Congress, 2nd Session, November 1, 1988. A table with a chronology of relevant defense and federal procurement reforms is provided in Appendix A.

² The President's Blue Ribbon Commission on Defense Management, known as the Packard Commission, was established by President Reagan in July 1985 under the chairmanship of David Packard. The Commission's Task Force on Acquisition released its report, *A Formula for Action: A Report to the President on Defense Acquisition*, in April 1986. Members of that Task Force included William J. Perry, Paul Kaminski, and Jacques Gansler, all of whom would go on to play pivotal roles in OSD and the AR movement in the 1990s.

³ See U.S. Department of Defense, *Defense Management Report to the President by Secretary of Defense Dick Cheney*, 1989; and Public Law No. 101-510, Section 800, 104 Statute 1587, 1990, "National Defense Authorization Act for FY 1991."

⁴ The purchase card, which was first proposed in 1982, aimed to reduce the costs associated with lower-cost purchases (up to \$25,000) by exempting such transactions from FAR procurement regulations. Vice President Gore's 1993 National Performance Review recommended increased use of the card by government agencies, a theme that was also emphasized by FASA 94 and Executive Order 12931 of October 13, 1994, on federal procurement reform. By FY98, the card was available to 160,000 DoD employees.

⁵ The idea behind performance-based service acquisition is that for service-provision contracts, the contract is to be output based, i.e., to specify the "what" but not the "how" of the service. The goal is to reduce contract costs, improve quality of service, and increase access to the commercial sector by avoiding intrusive and inappropriate inspection and other oversight processes.

William Perry gave his watershed “Mandate for Change” speech, which advocated several important AR themes.⁶ These included the need to rapidly acquire commercial products and technology from suppliers that use “cutting edge” manufacturing techniques and “best practices” in management; the conversion of U.S. defense-unique companies to dual-use production; the preservation of defense-unique core capabilities; the adoption of business processes characteristic of world-class customers and suppliers; and the reduction (and elimination where possible) of the use of government-unique terms and conditions in contracts.

In establishing the boundaries of our study, we recognized that it would not be useful to focus our attention on the entire scope of past reform efforts, particularly since many of those efforts have already been extensively examined. Therefore, we decided to adopt a timeframe that focuses chiefly, though not exclusively, on AR initiatives launched since the end of the Cold War (i.e., 1990). We chose this starting point because the end of the Cold War created an environment in which the long-standing goals of shortening acquisition lead times (“faster”), achieving desired system capabilities (“better”), and reducing system costs (“cheaper”) began to take on even greater significance as the political system began looking for what came to be called “the peace dividend.” However, we have also included a small number of developments that had their origins before the 1990 start point, such as the purchase card and outsourcing competitions under OMB Circular A-76.⁷ Although those initiatives began outside the general timeframe for our study, their inclusion is warranted because they were (and continue to be) important influences in the AR story.

The “What, How, and Who” of AR in the 1990s

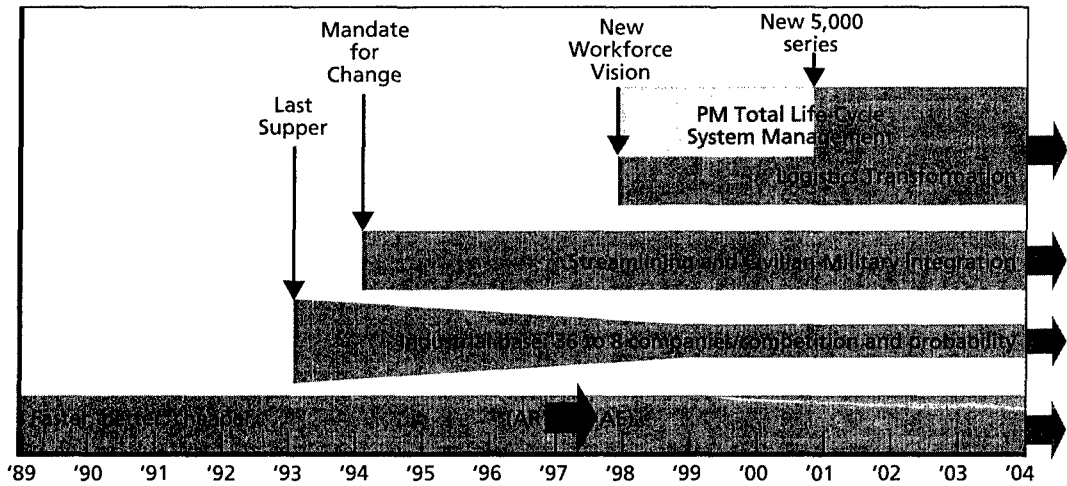
As discussed above, the shorthand for what AR was “about” in the 1990s is expressed in the catchphrase “faster, better, cheaper.” Across the bottom in Figure 2.1 we show

⁶ William J. Perry, “Mandate for Change,” February 1994; see <http://www.acq.osd.mil/ar/doc/mand24.pdf> for the full text.

⁷ OMB Circular A-76, *Performance of Commercial Activities*, was originally issued in March 1966 and later revised in 1979, 1983, and 1996. The concept is rooted in Eisenhower Administration Budget Bulletin 55-4, January 1955, which states, “It is the general policy of the federal government that it will not start or carry on any commercial activity to provide a service or product for its own use if such product or service can be procured from private enterprise through ordinary business channels.” Within DoD, the A-76 approach was given new impetus by Secretary of Defense Cohen, who used this theme in his Defense Reform Initiative (DRI) reports in both November 1997 and March 1999.

The OMB circular set out the requirement to market-test federal civilian/military jobs that are not “inherently governmental” by exposing them to external competition. The intention was to expose as much federal work as possible to commercial pressures and practices in order to improve efficiency, encourage innovation, and improve the quality of work.

Figure 2.1
Acquisition Reform in the 1990s: “What, How, and Who”



RAND MG291-2.1

the “faster, better, cheaper” goal applying over the time frame for our study. Above that, the figure shows three of the major “themes” of AR undertaken to support that goal, along with their key triggering events.⁸

Figure 2.1 suggests that one way to understand AR in the 1990s—in terms of understanding what line executives actually did to try to *implement* AR—is to recognize that the proponents of AR went through three natural stages in the course of the AR movement’s development. In the first stage, they reaffirmed and reemphasized “what” AR was intended to accomplish—namely the realization of a more responsive, effective, and efficient acquisition system (i.e., a “faster, better, and cheaper” one). In the second stage, they decided “how” they would go about doing that, namely by launching specific initiatives that would help: consolidate and improve the industrial base; streamline acquisition and procurement processes; promote the expanded use of commercial products and civilian-military integration; and improve material-support processes through “logistics transformation.” Finally, in the third stage, they recognized the need to make a specific and identifiable party within the system—the “who” of AR—responsible and accountable to ensure that all of the foregoing happened (and *kept* happening) on a continuing basis. The specific naming of the “who” took place when formal policy was issued naming program managers as the persons who would henceforth be “responsible and accountable” for “total life-

⁸ In addition to Secretary Perry’s “Mandate for Change” speech in 1994, the triggering events shown in Figure 2.1 include a dinner at the Pentagon in the spring of 1993 for defense industry executives, hosted by then Deputy Secretary Perry and since referred to as “the Last Supper,” in which Perry told the executives that with the end of the Cold War, DoD could no longer afford to support the full military-industrial complex as it had come to exist. See Chapter 6 of Carter and Perry (1999) for a first-hand description by Secretary Perry of the Last Supper.

cycle system management" (TLCSM).⁹ As indicated in Figure 2.1, the policy of making program managers responsible for systems over their entire life cycle (as opposed to being responsible only for the initial acquisition of the system) had its origins in concepts first presented in Secretary Cohen's "New Workforce Vision" report to Congress in 1998.¹⁰ In particular, as part of the logistics transformation ideas described in that report, new policies on the topic of "Product Support" were issued.¹¹ To institutionalize what AR in the 1990s had accomplished, those new product-support concepts and policies were then reaffirmed and restated, this time using the TLCSM terminology, in DoD 5000 Series acquisition policy released by OSD in 2001.¹²

Many AR Initiatives

Having established the general boundaries of our analysis, we conducted a literature search to determine which reform actions to include in our database of AR initiatives. As our criteria for including an initiative, we looked for a document or website showing that the DoD, had, at some point, considered the initiative to be a concrete instance of acquisition reform, either because the action was explicitly identified as such in the internal document or website, or because DoD had commissioned and

⁹ The TLCSM concept is that the "management" of a system involves paying attention not only to the system's acquisition cost before it is fielded, but also to the operating and support (O&S) costs it will accumulate over the course of its "life-cycle." It is noteworthy that the AR policy assigning "life-cycle" responsibility to PMs has been carried forward into the newest 5000 Series to be released in 2003. In particular, the new 5000.1 policy says: "Responsibility for acquisition of systems shall be decentralized to the maximum extent practicable. *A single individual shall be provided sufficient authority to accomplish program objectives for development, production, and sustainment,*" (emphasis added) and goes on to say: "*The PM shall be the single point of accountability for accomplishment of program objectives for total life-cycle systems management, including sustainment.*"

¹⁰ Secretary William Cohen's report, *Actions to Accelerate the Movement to a New Workforce Vision*, was submitted to Congress in April 1998, responding to Section 912(c) of the FY98 National Defense Authorization Act requiring the Secretary to explain how DoD intended to reform and streamline its acquisition organizations, workforce, and infrastructure.

¹¹ In the "New Workforce Vision" report, Secretary Cohen committed to reengineer DoD's product-support processes. A separate report to that end, *Product Support for the 21st Century, Report of the DoD Product Support Reengineering Implementation Team, Section 912(c)*, was issued by OUSD(AT&L) in July 1999. Soon after that, in October 1999, OUSD(AT&L) issued *Program Manager Oversight of Life-Cycle Support—Report of the DoD PMOLCS Study Group, Section 912(c)*. Also see the September 2000 report, *Product Support for the 21st Century: A Year Later*, prepared by the Section 912(c) Study Group for Product Support. A more recent statement of the new product-support concepts, tied to the concept of "Performance Based Logistics" (PBL), can be found in *Product Support: A Program Manager's Guide to Buying Performance*, a guidebook issued by ODUSD (Logistics) in October 2001. Within the Army, the Integrated Logistics Support (ILS) Directorate in the Office of the ASA(ALT) issued *Performance Based Logistics (PBL): Army Implementation Guidebook* in May 2002.

¹² The problem of incentivizing program managers to spend at least some of their resources on features that might help reduce future operating costs (at which point in time the PMs in question will have long since moved on), even though there is no improvement in delivered-weapon-system performance to be gained (as opposed to spending only on and for performance) is an old one. The creation of a Deputy Program Manager for Logistics (DPML) position in Program Management Offices, for example, was an earlier attempt to address this basic conflict.

accepted an externally produced report with the words "Acquisition Reform" included in the title, which named and described the initiative.¹³

Using that approach, we assembled a list of 63 different initiatives—all of which (using the criteria just described) fall under the rubric of "acquisition reform" (see Table 2.1). The list, while perhaps not exhaustive, still illustrates the very wide range of different actions launched under the banner of AR in the 1990s.

The scope and significance of the initiatives in this list varies. The list includes broad-based initiatives with wide-ranging effects (e.g., Commercial Item Procurements, Best-Value Contracting, Single Process Initiative, Evolutionary Acquisition, Logistics Transformation¹⁴) as well as initiatives with more focused effects (e.g., the use of Oral Presentations during bidding and the Enterprise Software Initiative¹⁵). In some cases, we grouped several closely related initiatives with a strong common theme under one name. For example, our initiative covering the use of Electronic Data Interchange (EDI) and e-Commerce actually refers to a number of closely related but separate initiatives, including Electronic Issue of Requests for Proposals, Paperless Contracting, Electronic Bill Payment, Electronic Shipping Documentation, and Information Interchange and Reporting Between DoD and Its Contractors. An

¹³ A number of acquisition reform initiatives are identified in studies by the Acquisition Reform Benchmarking Group (1997), Coopers & Lybrand (1997), and by Human Technology, Inc. (1999)—all of which were commissioned by DoD. We drew additional information from internal DoD materials, including two reports on the Defense Reform Initiative (DRI) submitted to Congress by Secretary of Defense Cohen (1997, 1999), and an internal DoD staff survey (Defense Customer Satisfaction, 2002). We obtained additional information about acquisition reform from *Introduction to Defense Acquisition Management* (Defense Acquisition University, 2003) as well as from DoD and Army websites.

¹⁴ Commercial Item Procurement refers to the FAR Part 12 procurements, which reduced restrictive laws and domestic source restrictions that limited contractors from using commercial sources. The aim of this initiative was to reduce contract costs and schedules, and to improve access to the commercial market. Best-Value Contracting calls for contracts to be awarded on the basis of "best value" (i.e., taking cost, performance, quality, and schedule all into account) rather than just lowest cost. The Single Process Initiative allows a single production process to be used for both commercial and military products in order to reduce contract schedule and cost, increase quality, and improve access to the commercial sector. Evolutionary Acquisition is the current term for an acquisition process designed to achieve more rapid acquisition of mature technology to support earlier fielding of usable war-fighting capability, coupled with technological upgrades in successive blocks to achieve full capability over time. The tenets of Logistics Transformation include PM responsibility for "total life-cycle system management," supply-chain management, adoption of "just-in-time" stockage and inventory methods, and other methods aimed at reducing customer wait times for materiel support.

¹⁵ Oral Presentations of industry proposals are intended to reduce contractors' time and cost in submitting proposals and to improve the dialogue between government and industry, while improving the quality of both. The Enterprise Software Initiative (ESI) is a DoD-wide initiative designed to implement an "enterprise-level" approach to the acquisition of software within DoD. By pooling commercial software requirements and presenting a single negotiating position to leading software vendors, ESI is intended to provide pricing advantages over what individual services and agencies would find if buying independently. (The ESI initiative is a financial initiative; it is not aimed at software standardization across DoD.)

Table 2.1
List of 63 Initiatives

1. Advanced Concept Technology Demonstration	22. Elimination of Mil Specs and Mil Standards	43. Prime vendor delivery
2. Alpha Contracting	23. Elimination of non-value-added packaging requirements	44. Program stability
3. Alternative dispute resolution	24. Elimination of non-value-added receiving/in-process/final inspection & testing	45. Rapid prototyping for software development
4. Best-value contracting: consideration of cost/performance tradeoffs	25. Elimination of non-value-added reporting requirements/CDRLs	46. Reduced number of TINA sweeps
5. Better post-award debriefing	26. Elimination of redundant oversight (PMO/Services/DCMC)	47. Reduction/elimination of contractor purchasing system reviews
6. CAIV (cost as an independent variable)	27. Enterprise Software Initiative	48. Reduction in total ownership cost (RTOC)
7. Commercial data and other exemptions for cost or pricing data	28. Evolutionary acquisition	49. Reduction of multiple Software Capability Evaluations
8. Commercial engineering drawing practices	29. Improved pre-solicitation phase communication	50. Revised thresholds for certified cost and pricing
9. Commercial quality standards (e.g., ISO 9000)	30. Integrated product & process development	51. RFP streamlining
10. Commercial sourcing: FAR Part 12 procurements	31. Joint government/industry IPTs	52. Rights in technical data and computer software
11. Commercial warranties and other product liability issues	32. Logistics transformation	53. Risk-based approach to DCAA oversight
12. Competitive sourcing (A-76)	33. Modernization through spares	54. Simulation-based acquisition
13. Concurrent developmental/operational testing	34. Multi-year contracting	55. Single Process Initiative
14. Contractor cost sharing	35. Open systems approach	56. Streamlined contract close-out process
15. Contractor total system performance responsibility	36. Oral presentations	57. Streamlined Defense Industrial Security Program requirements
16. Contractor-maintained design configuration	37. Other Transaction Authority	58. Streamlined documentation/resolution of nonconforming material issues
17. Cost accounting standards exemptions	38. Parametric cost estimating	59. Streamlined ECP review/approval
18. Cost-schedule reporting standards tailored to industry guidelines	39. Past performance data	60. Streamlined Government property management requirements
19. Direct submission of cost vouchers to DFAS	40. Performance-based progress payments	61. Survivability/lethality below end-item level
20. DoD purchase card	41. Performance-based service acquisition	62. Tailored negotiation of forward pricing rates
21. EDI	42. Price-based acquisition	63. Virtual prime vendor

annotated list of all 63 initiatives, with short descriptions of each, is given in Appendix B.¹⁶

Our list of 63 initiatives does *not* include any of the many AR initiatives aimed solely at improving the quality and training of the defense acquisition workforce. Improving the quality and skills of the workforce is important and necessary, of course, but because training and education are necessarily predicated on whatever changes have been made in the underlying processes, training and education initiatives will always represent an *adjunct* of AR rather than “process reforms” in and of themselves. This is not to say we ignored the training and education dimension. Some initiatives (e.g., Joint Government/Industry IPTs) have inherent training aspects, and our functional analysis shows that when we look across all the functions that relate to acquisition (e.g., requirements determination, contracting, test and evaluation, logistics, etc.), every one of those functions has a need to know about at least *some* AR initiatives. For our purpose of defining AR by listing AR initiatives, however, we chose to exclude initiatives that concern themselves *solely* with personnel selection, training, or professional development.

After assembling our list, we learned that the Acquisition Excellence Directorate in the Army ASA(ALT)’s office—in response to separate and independent tasking from the Acting ASA(ALT)—also had compiled a list of acquisition reform initiatives. We compared the two lists and found substantial overlap: from the Army list of 71 initiatives, 46 (73 percent) were exact or partial matches to our list of 63. The shaded items in Figure 2.2 show the 46 matches.

Of the remaining 25 initiatives on the Army list not appearing on our list, 12 fell into the “personnel and training” category that we deliberately excluded. We elected not to add any of the remaining 13 items from the Army list for different reasons. Two of the 13 Army items used generic-type names, so we could not determine how they may have related to our items (“Quantity vs. Dollars” and “Software Centers”). Five items could reasonably be assumed to be covered by an item (or group of items) already on our list: e.g., “ALT/PLT,” “Cycle Time Reduction,” and “Reduce Ammo Surge and Backup” all fall under “Logistics Transformation”; “Rapid Improvement Team (RIT) Process” falls under “Rapid Prototyping for Software Development”; and “Contractor Performance Incentives” falls under a combination of our contracting-related items. Finally, the remaining six Army items represent direct actions rather than “process” reforms: “Contingency Contracting,” Contracting Support on the Battlefield,” “Customer Satisfaction Survey,” “Privatization (Utilities, Housing, etc.),” “Rewrite DoD 5000 and AR 70-1,” and “Theater/Corps/Division Contracting Initiatives.”

¹⁶ Information we gathered about the initiatives included whether it was launched from outside or inside DoD and, in the latter case, whether it had been launched at the DoD (generally this was the case), and other descriptive information. Appendix B contains the name of each initiative and a short description of each.

Figure 2.2
Overlap with Army Acquisition Excellence List

1. Acquisition Logistics Initiatives	28. Earned Value Management	49. Performance-Based Services Acquisition
2. Activity-Based Costing/Other cost accounting initiatives	29. Electronic Commerce/ Electronic Data Interchange (EC/EDI)	50. Price-Based Acquisition
3. Advanced Acquisition Reform Training (AART)	30. Electronic Mail	51. Prime Vendor
4. Alpha Contracting	31. Energy Savings Performance Contracting (ESPC)	52. Privatization (Utilities, Housing, etc.)
5. ALT/PLT	32. Equipment Recapitalization	53. Purchase Card
6. Alternate Disputes Resolution	33. Expand Fixed Price Performance-Based BASOPS Contracts	54. Quantity vs. Dollars
7. AR Advocacy Program	34. FAR Part 12, Commercial Item Acquisition	55. Reduce Ammo Surge and Backup
8. AR Good News Stories	35. FAR Part 15 Rewrite	56. Reduce Contract Payment Delays
9. Benchmarking/AR Metrics	36. FY1998 National Defense Authorization Act, Section 912 Initiatives	57. Re-engineering the Logistics Support System (Product Spt for 21st Century)
10. Business Sector Management Initiatives	37. FY1999 National Defense Authorization Act Section 816 Initiatives	58. Reprocurement Re-engineering
11. Centers and Satellites/FAA	38. IPT Process	59. Reverse Auctioning
12. Change Management Center	39. Knowledge Management	60. Revise Equipment Disposal Process
13. Civil-Military Integration	40. Maintenance Contracts Consolidation	61. Rewrite DoD 5000.1, DoD 5000.2-R, & AR 70-1
14. Competitive Sourcing (OMB Cir A-76)	41. Maintenance, Repair, & Operations (MRO) Prime Vendor	62. RIT Process
15. Consolidate Contract Requirements	42. Multiple Year Contracting	63. Share-in-Savings
16. Contingency Contracting	43. National Performance Review (NPR) Reinvention Impact Center (RIC)	64. Simulation-Based Acquisition
17. Continuous Learning	44. Open Systems Specifications and Standards	65. Single Process Initiative
18. Continuous Technology Refreshment (formerly MTS)	45. Oral Presentations	66. Single Test and Evaluation Process
19. Contract Bundling	46. Outcome-Based Contracting	67. Software Centers
20. Contracting Support on the Battlefield	47. Paperless Contracting	68. Standard Procurement System (SPS)
21. Contractor Performance Incentives	48. Past Performance Information Management System (PPIMS)	69. Streamlining Logistics Requirements in Solicitations
22. Cost as an Independent Variable (CAIV)		70. Theater/Corps/Division Contracting Initiatives
23. Customer Satisfaction Survey		71. Total Ownership Cost Reduction
24. Cycle Time Reduction		
25. Defense Acquisition Deskbook		
26. Distance Based Learning		
27. Double Reprogramming Threshold		

46 clear matches + 12 related to training + 13 generic, subsumed, procedural = 71

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Sorting the Database

Once the initial list of 63 AR initiatives was constructed, we began to collect and add more information that would help to sort and evaluate the initiatives in a number of different ways:

- by chronological order,
- by theme or type of initiative,
- by relation to Under Secretary Aldridge's "five goals,"
- by acquisition function,
- according to whether the initiative had been tested or prototyped in any way,
- according to whether the initiative was referenced in the DoD 5000 Series acquisition policy, and
- according to whether the initiative had been included in the DAU curriculum.

The remainder of this chapter discusses each of these in turn.

Chronology: The Majority of the Initiatives Were Launched Between 1994 and 1996

We found reasonably firm dates of launch for 55 of the 63 initiatives on our list. Using this information, we sorted the list into chronological order. The results are shown in Figure 2.3. Not surprisingly, the vast bulk of the initiatives fall in the 1994–1996 period that followed Secretary of Defense Perry’s February 1994 “Mandate for Change” memorandum.

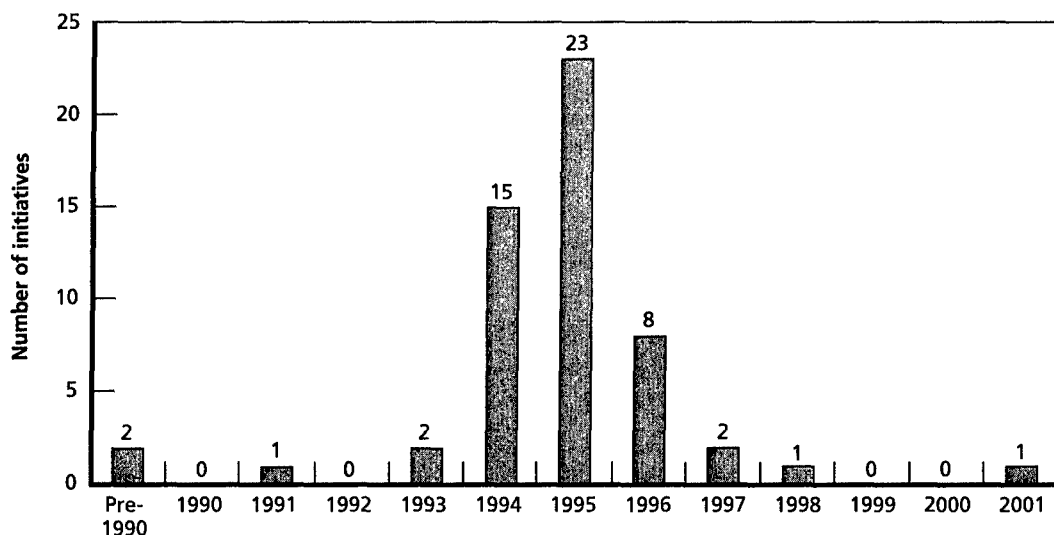
Themes: AR in the 1990s Differed from AR in the 1980s

We examined the 63 initiatives to see how they grouped under the four principal AR themes of the 1990s noted earlier (see Figure 2.1):

- Rationalizing and Improving the Industrial Base.
- Streamlining.
- Civilian-Military Integration.
- Logistics Transformation and Total Life-Cycle System Management.
- Reducing Waste, Fraud, and Abuse.

We added the fifth, 1980s “theme” of “Reducing Waste, Fraud, and Abuse,” to the four themes for AR in the 1990s in order to understand how the 1990s initiatives

Figure 2.3
Chronology of Acquisition Reform Initiatives



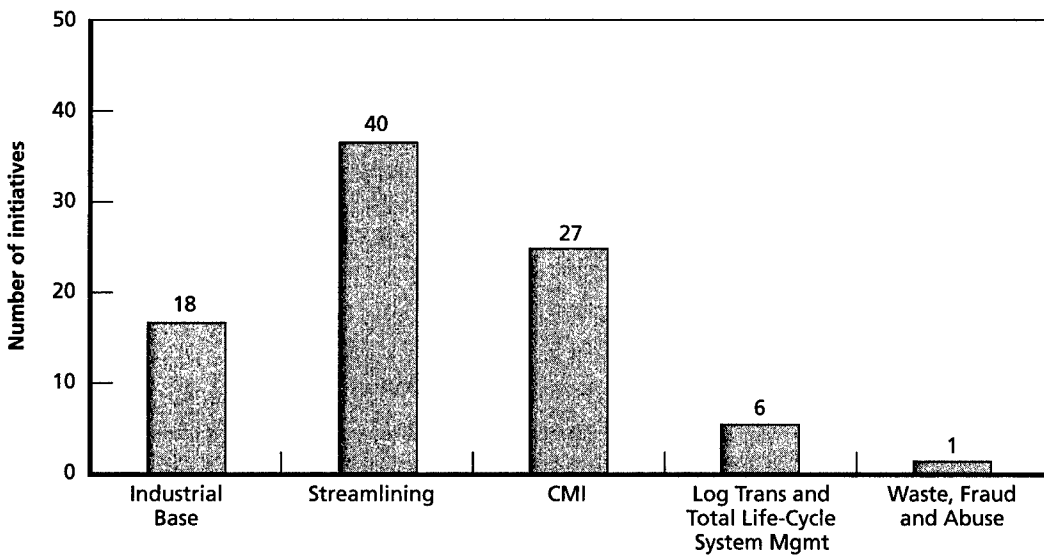
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NOTE: For a list of the initiatives in chronological order, see Appendix C.

relate to the themes of AR in both the 1980s and 1990s. For this analysis, we attributed each initiative to one or more of these five major AR themes by comparing and arbitrating between the views of three members of the study team, all of whom possessed broad experience in different aspects of acquisition.¹⁷ The results of this thematic grouping are shown in Figure 2.4. The totals in each category sum to more than 63 (92) because in some cases an individual initiative was judged to fall under two equally important main themes.

One notable observation that can be made from this analysis is that the AR initiatives of the 1990s were pursuing a goal quite different from the goal of AR in the 1980s, which was to reduce waste, fraud, and abuse in defense contracting. Only one AR initiative in the 1990s (Past Performance Data, which says a bidder's past performance is to be treated as a significant factor in the source-selection process for acquisitions exceeding \$1 million), was intended (at least in part) to act as a check on waste, fraud, and abuse. Indeed, as the figure shows, more than half of AR initiatives in the 1990s focused on ways to *streamline* the acquisition process, which in many

Figure 2.4
Acquisition Reform Initiatives Grouped by Theme



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¹⁷ The research team included an experienced government program manager, a former defense industry senior vice president, and RAND researchers with prior acquisition-research backgrounds. Nonetheless, this judgment is, by necessity, subjective. Appendix D shows how each individual initiative relates to the five themes.

cases meant *relaxing* some of the procedures and rules that were established in the 1980s to guard against waste, fraud, and abuse.¹⁸

On this last point, we offer the cautionary historical note that over the course of the AR movement in the 1990s, the Office of the DoD Inspector General (DoD IG), while generally supportive of the goals of AR, repeatedly raised concerns that at least some AR initiatives ran the risk of eliminating important procurement safeguards. For example, Derek Vander Schaff, Deputy DoD IG, speaking to the House Small Business Committee on August 3, 1995, said:

Acquisition reform, especially much of what is being proposed in this second round, is carrying out a longstanding industrial or supplier agenda to curtail or eliminate many of these key safeguards which have been built into the United States procurement process over the past 200 years. I broadly categorize these as disclosure requirements, certifications, price-reduction requirements, and audit rights. Certain of these safeguards help ensure cost (fair price) and quality, both of which become greater risks as we rely more on commercial products and practices.¹⁹

Five years later, in 2000, Donald Mancuso, the outgoing DoD IG, in a letter to Congress named acquisition as one of the top ten challenges facing DoD. In his letter he stated:

The DoD is working toward the goal of becoming a world-class buyer of best-value goods and services from a globally competitive industrial base. The department hopes to achieve this transformation through rapid insertion of commercial practices and technology, business process improvement, creating a workforce that is continuously retrained to operate in new environments, and heavily emphasizing faster delivery of material and services to users. In order to fulfill these objectives, the DoD has initiated an unprecedented number of major improvement efforts, including at least 40 significant acquisition reform initiatives.

Despite the previous successes and continued promise of reforms, the business of creating and sustaining the world's most powerful military force remains expensive and vulnerable to fraud, waste, and mismanagement. In FY 1999, the DoD bought about \$140 billion in goods and services, in 14.8 million purchasing actions, which means 57,000 purchasing actions on an average working day. Statistics for FY 2000 are not yet available but will be similar. The scope, complexity,

¹⁸ For example, the 1990s AR initiatives, Commercial Data and Other Exemptions for Cost and Pricing Data, Cost Accounting Standards Exemptions, Cost-Schedule Reporting Standards Tailored to Industry Guidelines, Elimination of Redundant Oversight (PMO, Services, DCMC), Other Transaction Authority, Reduced Number of TINA (Truth in Negotiations Act) Sweeps, and Revised Thresholds for Certified Cost and Pricing, are all examples of changes aimed at streamlining procedures that had originally been established to function as controls for reducing waste, fraud, and abuse in transactions with contractors.

¹⁹ For the full text of Vander Schaff's remarks, see the online journal *Defense Issues*, Vol. 10, No. 79, "Debunking Acquisition Reform Myths," available at <http://www.defenselink.mil/speeches/1995>.

variety, and frequent instability of Defense acquisition programs pose particularly daunting management challenges. No major acquisition cost reduction goals have yet been achieved, and the results of most of the specific initiatives are still to be determined, particularly since many have not yet been fully implemented and are in a developmental or pilot demonstration phase.²⁰

One month after he sent his letter to Congress, in a January 2001 interview with *Defense Week*, Mancuso said the following about the risk associated with AR:

I've always viewed my job as looking at the balance: What's acceptable risk? You have acquisition reform and some very noble efforts that acquisition reform is intended to work towards, and then you have, what's an acceptable risk to the government? And frequently we see and I feel that there's too much risk.²¹

Our reason for citing these IG statements is not to say the IG's perspective is "right" or "wrong." It is only to emphasize how far the pendulum of AR had moved from the 1980s to the 1990s. If the problems of waste, fraud, and abuse (real or perceived) do return as a result of the "relaxation" represented by AR in the 1990s, and the idea of reform once again comes to refer to tightening things with contractors, the acquisition community would be well advised to keep the lessons of the 1980s and 1990s in mind, in order to avoid repeating the entire cycle all over again.

Under Secretary Aldridge's "Five Goals": AR Changes Again

While the discussion of the themes of AR can help us see how well the 63 AR initiatives of the 1990s track against the themes and goals of earlier AR efforts, a look at how the initiatives relate to the five goals of the new, Acquisition Excellence (AE) philosophy that DoD leaders have now defined provides a sense of how well the initiatives of the 1990s line up with the new objectives for acquisition. As laid down in 2001 by the incoming Under Secretary of Defense for Acquisition, Technology, and Logistics, E.C. "Pete" Aldridge, the "five goals" underlying the new Acquisition Excellence philosophy are:²²

- Achieve credibility and effectiveness in the acquisition and logistics support process.

²⁰ Letter from Donald Mancuso to the Honorable Richard Army, Majority Leader of the House of Representatives, December 1, 2000.

²¹ "Q&A with Donald Mancuso, Outgoing IG, on Pentagon's Toughest Jobs," *Defense Week*, January 8, 2001, p. 14.

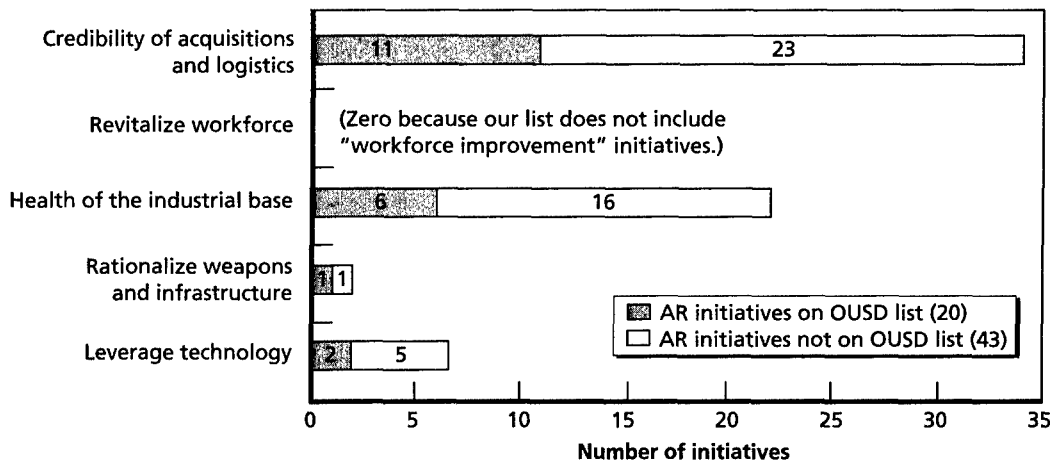
²² The five USD(AT&L) goals for acquisition first appeared in a statement by Aldridge before the Senate Armed Services Committee on April 26, 2001, when he testified as the nominee to become Under Secretary of Defense (AT&L). His full statement is available at http://www.acq.osd.mil/acqweb/usd/new_test/confirmation.doc. The deliberate shift in emphasis that occurred in 2001—away from "reform" and toward "accomplishment" of the five Aldridge goals—is discussed further in the next chapter on the headquarters view of acquisition reform.

- Revitalize the quality and morale of the DoD (AT&L) acquisition workforce.
- Improve the health of the defense industrial base.
- Rationalize the weapon systems and infrastructure with defense strategy.
- Initiate high-leverage technologies to create the warfighting capabilities, systems, and strategies of the future.

How do the 63 AR initiatives on our list relate to these five “Aldridge goals”? To answer that question, we began by examining a list of 78 actions assembled by OUSD(AT&L) and intended to serve as concrete steps toward the achievement of the five Aldridge goals. A total of 20 of the initiatives on our list matched items on the AE actions list and thus had already been mapped, in effect, to the Aldridge goals by OUSD(AT&L). For this reason we accepted that attribution without question. For the remaining 43 initiatives on our list, we undertook our own assessment of which of the five Aldridge goals they supported. The results are shown in Figure 2.5. (Note that the initiatives covered in the figure sum to 65 rather than 63. That is because two of our initiatives each related to two separate Aldridge goals.)

Figure 2.5 shows that the acquisition reform initiatives launched in the mid-1990s tend to primarily support the first and third Aldridge goals. In particular, 34 of the initiatives map to Aldridge goal 1 (achieve credibility and effectiveness in the acquisition and logistics support process), while 22 map to goal 3 (improve the health of the defense industrial base). None of the initiatives on our list map to goal 2 (revitalize the quality and morale of the DoD acquisition workforce), because we deliberately excluded AR initiatives in that category from our list. (A total of 13 of the 78 items on the OSD action list relate to goal 2.) More surprising was the lack of

Figure 2.5
Acquisition Reform Initiatives Mapped to Aldridge's Five Goals



strong linkage (only 7 AR initiatives) to goal 5 (initiate high-leverage technologies to create warfighting capabilities, systems, and strategies of the future), and the even weaker linkage (only 2 initiatives) to goal 4 (rationalize the weapons systems and infrastructure with defense strategy).²³

As noted above, part of the analysis underlying Figure 2.5 involved examining a list of 78 OSD-launched actions intended to support the five goals of AE.²⁴ The Acquisition Initiatives office in OUSD(AT&L) independently published that list in April 2002, after our study was well under way. Also as noted, we found only 20 matches (exact or partial) between our list of 63 AR initiatives and the 78 AE actions on the OSD list. That means 43 of the AR items on our list do not appear at all on the OUSD(AI) list. The lack of overlap exists for several reasons. First, as noted above, 13 of the AE actions are concerned with training and professional development of acquisition personnel (relating to Aldridge goal 2), so the lack of overlap is slightly less great than it first appears. Nevertheless, subtracting those 13, and taking into account the 20 matches we did have, we still have 43 items on our list that find no matches at all among the 45 remaining action items on the OSD list. By way of explaining that significant remaining lack of overlap, we learned that OUSD(AT&L) had reviewed²⁵ many of the 1990s AR initiatives and had classified some as having been "institutionalized" (e.g., Alternative Dispute Resolution, Joint Government and Industry IPTs, Best-Value Contracting, and Prime Vendor Delivery) and so would have had no reason to include them on a list of new actions supporting AE. In some cases, however, the OUSD(AT&L) review indicated that an initiative required "continuing emphasis"²⁶ (e.g., Use of Past Performance Data, Open Systems Approach, and Single Process Initiative), so OUSD(AT&L) presumably had other reasons for not including those initiatives on its list of new AE actions. In one case we know that OUSD(AT&L) decided the initiative did not merit further pursuit. In March 2002, the OUSD(AT&L) leadership expressed their view that the "Contractor Total System Performance Responsibility (TSPR) initiative was fundamentally flawed,"²⁷ so

²³ One of the two AR initiatives relating to goal 4, however, is the Competitive Sourcing based on OMB Circular A-76, which covers a lot of ground. (Even the OSD list of 78 AE actions contains only six items that map to goal 4.)

²⁴ All 78 action items are listed in an April 2002 release from Office of the Deputy USD(AT&L) available at <http://www.acq.osd.mil/ar/#publicreleasegoals>.

²⁵ Every two years, OUSD(AT&L) conducts a web-based survey of the acquisition workforce "to gain insight, in an integrated, across-the-board manner, into those areas where acquisition initiatives should be focused." (See <http://www.acq.osd.mil/ar/aws2002/default.htm> for the results from the 1998, 2000, and 2002 surveys.) The survey results are one of the factors OUSD(AT&L) takes into account when classifying an initiative as "institutionalized" or "requires continuing emphasis."

²⁶ Based on the FY00 Acquisition Workforce Survey.

²⁷ Contractor "Total System Performance Responsibility" (TSPR) was originally used as a contract condition for the acquisition of new systems that obligated the prime contractor to be totally responsible for the complete integration of an entire weapon system. The idea of contractor TSPR was to ensure that the government received an

that is why that initiative, for example, does not appear on the list of 78 actions OUSD(AT&L) published in April 2002.²⁸

Finally, however, and perhaps most germane for understanding why there is so little overlap between our list and the OUSD(AT&L) list, is the fact that there is a difference in *character* between what AR was about in the 1990s and what AE is trying to do in the 2000s. It is clear from the way they are expressed that the five goals of AE (particularly goals 4 and 5) are much more focused on achieving *outcomes* (e.g., rationalizing weapon systems and the support infrastructure with defense strategy, and leveraging technology to provide new capabilities) than they are on reforming *processes*. The fact that the AR initiatives of the 1990s do not relate that strongly to Aldridge goals 4 and 5, therefore, is largely a result of the fact that the OUSD(AT&L) expectations and goals for acquisition *changed* in the transition from the 1990s to the 2000s. The underlying “faster, better, cheaper” goals of AR in the 1990s remain, of course, as underlying goals of AE, but AE itself is shifting attention from *process* to *outcomes*. By building on what was done in the 1990s, AE is trying to move on and actually begin achieving the outcomes that AR was seeking all along—and in that sense, AE and AR are very closely related. But the AE goals of “rationalizing weapon systems with strategy” and “leveraging technologies to provide new capabilities” represent outcomes desired from the acquisition process rather than changes to the process itself. As a result, many of the 78 AE actions are simply statements of results to be achieved *by* the acquisition system rather than process changes to be accomplished *within* it.

Functional Connections: AR Initiatives Relate to Many Acquisition Functions

Because effective acquisition requires a collaborative effort involving many different functions, we examined the relevance of each of the 63 initiatives to the different functional activities that make up or support the overall acquisition process. We began by considering the following 12 acquisition-related career fields:²⁹

- Auditing.

integrated system that would meet the performance requirements as defined in the system specification. The term TSPR later came to also refer to “full contractor logistics support” for fielded systems. The latter generally involves the identification of inherent government functions that must be performed by the government in the sustainment phase of weapon-system life cycles, with all noninherent (or noncore) government functions then becoming the responsibility of the contractor.

²⁸ Under Secretary Aldridge was quoted in the March 22, 2002 issue of *Defense Daily International* saying the following about TSPR: “The pendulum has swung too far with the government trying to get out of the business in saying we will give the responsibility for performance to the contractors . . . we are backing away from the government giving up its responsibility through TSPR and bringing back to the government to say look, we can never give up our total responsibility. That [TSPR] was introduced several years ago, and we have found that that has not worked very well, especially for development programs.”

²⁹ These are the 12 acquisition-related career fields listed in the FY01 Defense Acquisition University Annual Report. The DAU annual report is available at http://www.dau.mil/pdf/ANNUAL_REPORT.pdf.

- Business, Cost Estimating, and Financial Management.
- Communications and Computer Systems.
- Contracting.
- Industrial Property Management.
- Logistics.
- Manufacturing and Production.
- Program Management.
- Purchasing and Procurement Assistance.
- Quality Assurance.
- Systems Planning, Research Development, and Engineering.
- Test and Evaluation.

In order to classify the initiatives, we found it useful to group some of these career fields together under broader functional headings. Thus, our category of Finance includes the three subcategories of Auditing; Business, Cost Estimating, and Financial Management; and Industrial Property Management. Our category of Engineering contains the subcategories of Information Technology; Manufacturing and Production; and Systems Planning, Research, Development and Engineering. We also added two additional categories for our functional analysis: Requirements Generation and Contractor.

We decided to include the Requirements Generation function in our analysis to provide more complete coverage of the cradle-to-grave view of the acquisition process. Organizations that generate requirements (i.e., describe “what” is to be acquired) are not normally considered part of the acquisition community. Requirements Generation, however, is a key element of the acquisition process because it provides the start point for, and thus clearly exerts a strong influence over, any new acquisition. We therefore considered Requirements Generation an important function to include. In addition, we included the Contractor function because we wanted to consider whether potential DoD suppliers were likely to be affected by the various initiatives.

Our functional perspective thus covers ten functions, the first nine of which are DoD functions and the last of which refers to external contractors:

- Program Management
- Contracting
- Finance
- Requirements Generation
- Engineering
- Purchasing/Procurement Assistance
- Logistics
- Test and Evaluation
- Quality Assurance
- Contractor

We then examined each of the 63 AR initiatives in our database and made a judgment as to which of the nine DoD and one contractor functions were most likely to be affected by each one. As with the thematic analysis, this judgment on our part is necessarily subjective. In this case, however, the assessment was made by a member of the project team who was also an experienced program manager.³⁰

A function was judged to be affected by an initiative if personnel performing that function—in association with an acquisition program—might be assessed (by the program manager) as needing to be aware of the existence, and to understand the purpose, of the initiative in order to be able to effectively perform their functions in support of the program.³¹ More than one function could potentially be affected by any single initiative. The results of this functional analysis are shown in Figure 2.6.

As Figure 2.6 shows, many initiatives are related to multiple functions. Our analysis found that four initiatives were likely to affect all ten functions. These were the Single Process Initiative, Integrated Process Teams (IPTs),³² Joint Government/Industry IPTs,³³ and Alpha Contracting.³⁴ It is worth noting that these three are closely related to each other in that each depends on close multi-disciplinary teamwork. In addition, we found that 35 initiatives were likely to affect at least half of the 10 functions analyzed.

Not surprisingly, the program manager function is likely to be affected by every single initiative. This is to be expected, since it is ultimately the PM's responsibility

³⁰ Shuna Lindsay was the 2001–2002 U.K. Ministry of Defence Visiting Scholar at RAND from August 2001 to July 2002 and served as a member of the RAND Arroyo Center project team for this study. She brought more than 20 years of experience in defense acquisition to the project, including more than 15 years as a Principal in the Ministry of Defence (equivalent to Senior Executive Service in the U.S. system). In January 2000, for example, Lindsay was named Team Leader of the Airlift and Future Strategic Tanker Aircraft Integrated Project Team in the ministry's Defence Procurement Agency. She was designated a Commander of the British Empire (CBE) in 2001 and, following her year at RAND, became the Minister for Defence Materiel, British Defence Staff, British Embassy, Washington, D.C.

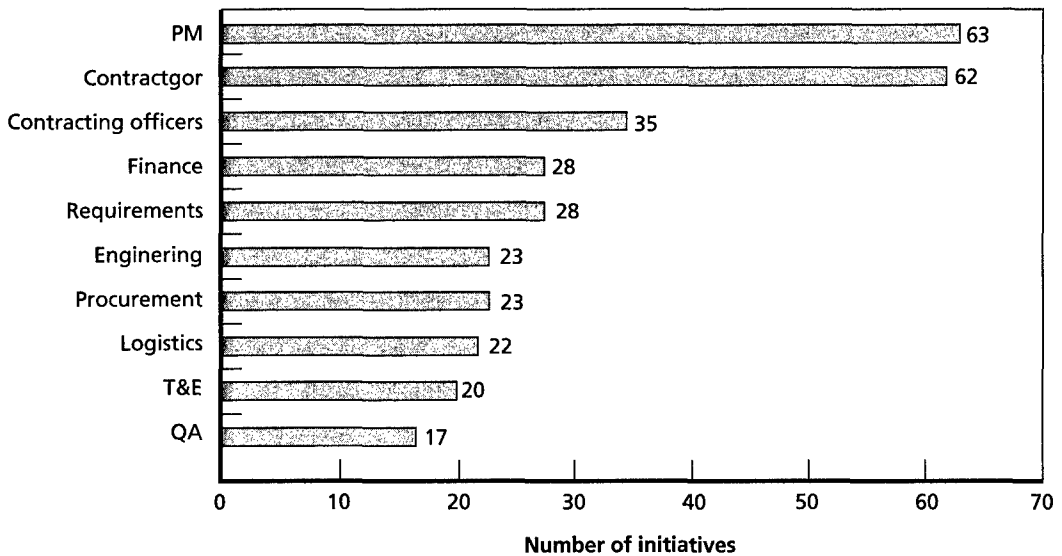
³¹ For example, is the initiative (e.g., Contractor Cost Sharing, Performance Based Progress Payments, Other Transaction Authority, etc.) one that the contracting officer should know about? Or are initiatives like Commercial Engineering Drawing Practices or Prime Vendor Delivery ones that the engineering and logistics staff supporting a program should know about?

³² Integrated product and process development involves collaboration among all key stakeholders from all relevant disciplines from the earliest design phase to deliver a cost-effective, producible, high-quality, supportable, and "right the first time" design.

³³ Joint government/industry IPTs replace traditional adversarial relationships among key players with cooperation and teamwork to achieve targets. The intention is to eliminate functional stovepiping by bringing all expertise to address and resolve problems at the earliest moment and lowest level possible, thus reducing time, cost, and a part of the oversight overhead, while improving solution/product quality.

³⁴ Alpha Contracting (also known as IPT Pricing and "one pass" contracting) involves all the government participants in a contract negotiation working as a team and staying in continuous communication with the contractor while the proposal is developed. The team concurrently evaluates, analyzes, and resolves issues during proposal development.

Figure 2.6
Acquisition Reform Initiatives in Relation to Functions Affected



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to fully examine every possible option for improving his or her project's chances of delivering on time, on cost, and to the required performance, and to ensure that the best possible combination of initiatives is applied.

Similarly, the Contractor function relates to almost every initiative. In fact, only one initiative (the Enterprise Software Initiative or ESI) is not likely to affect the Contractor function (because it is simply an internal DoD buying strategy aimed at reducing DoD spending for software). Every other initiative calls for at least an "intelligent supplier" awareness of the initiative on the part of contractors.³⁵ This finding has implications for DoD's acquisition education program. If suppliers are to be able to respond intelligently and quickly to its new business practices, DoD must find ways to ensure that they know the various initiatives exist and understand their purposes, and are at least considering the possible implications for how they do business with DoD.

After the PM and Contractor functions, the Contracting function is likely to be affected by the greatest number (35) of the initiatives, followed by Finance and Requirements Generation (28 in each case), Engineering and Purchasing/Procurement Assistance (23 in each case), Logistics (22), Test and Evaluation (20) and Quality Assurance (17) functions. We assessed the Requirements Generation as likely to be

³⁵ By "intelligent supplier awareness" we mean an awareness of the existence and meaning of the initiative on the contractor/industry side (e.g., on the part of the program manager's counterpart in the firm holding the contract to design or build the system), including how applying or taking advantage of the initiative might mutually benefit the firm and the government.

affected by 28 initiatives, the same result as for the Finance function. It should be noted that, although the Logistics function was the overt target of only four initiatives (Logistics Transformation, Modernization through Spares, Prime Vendor Delivery, and Virtual Prime Vendor³⁶), our assessment is that the Logistics function is likely to be affected by 22 initiatives.

Two major conclusions can be drawn from the results of the functional analysis. First, whatever the overt subject matter of any given AR initiative, it is likely that its successful implementation will depend on whether or not a wide cross section of the acquisition community—both inside and outside DoD—possesses a more or less detailed understanding of its main thrust and mechanics. This need has clear implications for the dissemination of new policy and for the broad targeting of the education process that should accompany any new initiative or reform plans.

Second, because requirements generation is not traditionally viewed as an acquisition function, those in that function may not be regularly targeted for training in new acquisition ideas and initiatives. However, if those responsible for requirements generation fail to understand the thrust and conditions for success of the initiatives, the outcome of many of the initiatives could be prejudiced from the outset.

Trialing and Prototyping: Individual Initiatives Tended Not to Be Prototyped (but AR “Pilots” at the Program Level Were Undertaken)

As part of our study, we reviewed each initiative to attempt to determine whether it had been in some way trialed, piloted, or prototyped on a restricted basis before full launch. Our reason for considering this question was to try to obtain at least some measure of the amount of attention paid to *evaluating* initiatives (i.e., testing them to see if they would work), compared to simply *announcing* them and encouraging their use. (While it is not unreasonable to think that every initiative would automatically prove to be a practical and effective way to make the acquisition system work better, the danger of unintended consequences is always present.)

In all, we found clear evidence of some form of trialing or prototyping *at the initiative level* for only 11 of our 63 initiatives, with indications of an intention to trial a further four. That does not mean that the rest of the initiatives were not pi-

³⁶ Logistics Transformation is aimed at transforming DoD's mass-based logistics system into an “agile,” reliable system that delivers logistics on demand. Logistics reform calls for movement to performance-based support and the linkage of warfighting with business practice by applying the commercial world's focus on customer service, integrated supply chains, rapid transportation, and e-commerce techniques. Modernization through Spares aims to improve readiness and reduce operations and support costs by inserting commercial items or technology into military legacy systems. Prime Vendor Delivery refers to the practice of DoD entering into longer-term supply arrangements under which goods, at prenegotiated terms and prices, can be called forward on an as-required basis and delivered directly from the vendor to the point of demand, thus eliminating the need for DoD to maintain stocks and incur associated storage costs. Virtual Prime Vendor expands the prime vendor delivery concept to include the creation of a “virtual” prime vendor where none currently exists by appointing a prime contractor to establish a supply chain to bring together and manage a range of required stocks.

lotted in any way. It means only that we were unable to find evidence that such trial-ing had taken place within DoD³⁷ at the initiative level.

In practice, the literature and websites we searched provided little information on piloting at the individual initiative level. There was clear evidence of a pilot program for the Reduction in Total Ownership Costs (RTOC) initiative,³⁸ and of a comprehensive Packaging pilot program.³⁹ Otherwise, however, while there was often evidence of limited initial introduction, it was not clear whether this amounted in practice to controlled prototyping, by which we mean a rigorously monitored and reviewed pilot with assessment, feedback, and adjustment before more widespread application, or simply a deliberately limited application of the initiative.

Some initiatives clearly appear to have drawn on the previous testing of related initiatives. For example, the introduction of the DoD purchase card clearly built on experience elsewhere in the federal procurement system, and the Prime Vendor program was initiated first for pharmaceuticals and subsequently extended to subsistence and then to facilities-maintenance supplies. There was also occasional evidence of *intention* to pilot an initiative, but there is no readily available information on whether such a pilot took place or what results it produced.⁴⁰

Notwithstanding the above findings, recognition did exist of the need to test AR initiatives, so piloting was done, but at the *program* level. In particular, to show how AR would work, seven Defense Acquisition Pilot Programs (DAPPs) were given statutory and regulatory relief under the 1994 Federal Acquisition Streamlining Act, to allow various AR initiatives to be tested, in effect, in those programs.⁴¹ The Joint Primary Aircraft Training System (JPATS) DAPP, for example, explicitly reported

³⁷ A reviewer notes that a number of the AR initiatives were motivated by similar initiatives taken in the commercial world external to DoD, so initiatives in that category could be said to have been "tested" in that way.

³⁸ The Reduction in Total Ownership Cost (RTOC) initiative aims to ensure that investment decisions are made on the basis of the through-life costs (i.e., full "life-cycle" costs) of an acquisition program, and not just on the basis of the initial acquisition cost.

³⁹ This pilot relates to the initiative to eliminate non-value-added packaging requirements. The initiative eased packaging specifications to allow the use of more commercial-type packaging standards where appropriate.

⁴⁰ For example, under the Greater Use of Parametric Cost Estimating initiative, on July 7, 1995, a Parametric Working Group identified pilot programs to use parametric/historic cost data for program cost estimating on a trial basis for six months, but subsequent information was not readily available.

⁴¹ The seven original DAPPs included five "statutory" DAPPs (i.e., programs for which laws were waived):

- Joint Direct Attack Munition (JDAM),
- Fire Support Combined Arms Tactical Trainer (FSCATT),
- Joint Primary Aircraft Training System (JPATS),
- Non-Development Airlift Aircraft (NDAA), and
- Commercial Derivative Engine (CDE),

and two "regulatory" DAPPs (i.e., programs for which regulations were waived):

- Defense Personnel Support Center (DPSC) and
- C-130J.

on the savings achievable by switching to industry cost-schedule reporting standards (Earned Value Management in this case), while the Commercial Derivative Engine (CDE) DAPP trialed the use of Multi-Year Contracting.⁴²

Even the DAPP approach, however, was not enough to convince all parties that the benefits of AR were unalloyed. For example, even the DAPPs Pilot Program Control Group (PPCG) noted the following in a 1997 report on what had been accomplished in the DAPPs:⁴³

One issue of concern to the PPCG is that the shift to “commercial” specifications has a cost associated with it that must be recognized. Prior to acquisition reform, the Government provided specifications and standards and paid the cost for maintaining them. With the shift of responsibility to the contractor community, there are some costs that the contractor community will incur to keep specifications current, to deal with potentially increased liability exposure, and to add or adjust to new standards. Much of the cost borne by the Government when it retained that responsibility must now be recognized as an offset to the cost premium previously identified in the DoD Regulatory Cost Premium Study.

DoD 5000 Series: More than Half the Initiatives Were Not Included

A necessary (if not always sufficient) condition for institutionalizing process changes within DoD is the formal incorporation of the changes into DoD directives, instructions, and regulations. Accordingly, one way to measure the effects of AR is to check to see how many AR initiatives from the 1990s were incorporated into DoD’s 5000 Series acquisition policy.⁴⁴

⁴² In 1997, the Pilot Program Control Group (PPCG), which oversaw the DAPPs, issued a report, *Celebrating Success: Forging the Future*, which describes the AR initiatives applied in the DAPPs and quantifies how cost, schedule, and performance effects were achieved as a result. It is available at <http://www.acq.osd.mil/ar/ppcg.htm>.

⁴³ Ibid.

⁴⁴ We used the 2001 versions of the 5000 Series for our analysis: namely, 5000.1 (DoD Directive), *The Defense Acquisition System*, January 4, 2001, 12 pages; 5000.2 Change 1 (DoD Instruction) *Operation of the Defense Acquisition System*, January 4, 2001, 46 pages; and 5000.2-R Change 1, (DoD Regulation), *Mandatory Procedures for Major Defense Programs (MDAPS) and Major Automated Information System (MAIS) Acquisition Programs*, June 10 2001, 194 pages. All three of these documents were released in final form in April 2002. Also, as noted earlier, the preceding documents were “cancelled” by OSD on October 30 2002—after the research for this study was completed—and replaced by a new set of 5000 Series documents released in draft form in October 2002 and scheduled for formal release in 2003. This latest version of 5000 Series preserves much of what was discussed in the 2001 version, but in more compressed form and with language changes designed to encourage and support greater PM freedom and flexibility. In effect, the new 5000 Series reflects the shift from AR to AE discussed earlier. It is also consistent with the increased responsibility and accountability that has been placed on the shoulders of PMs under the TLCSM philosophy, because the intent of the new 5000 Series (as is made clear in the October 2002 DepSecDef memorandum canceling the 2001 version) is to foster “efficiency, flexibility, creativity, and innovation” by PMs. (The next chapter, on the headquarters perspective on AR, contains more discussion of the newest 5000 Series policy.)

The 5000 Series documents have been the vehicle for specifying DoD acquisition policy since the early 1970s.⁴⁵ The original 5000 Series mandated a complicated acquisition process requiring the government to follow specific rules. In 1995, Paul Kaminski, then Under Secretary of Defense for Acquisition and Technology (USD[A&T]), issued a memorandum calling for the revision of the series, and a 160-page version was released in 1997 (significantly improving, at least in terms of page count, on the 1991 version, which had 900 pages).⁴⁶

To measure coverage of the 63 AR initiatives from the 1990s, we turned to the version of the 5000 Series released in 2001. The 2001 version was written by a joint DoD task force working over the 1999–2001 period with the express purpose of preparing a new 5000 Series that incorporated and institutionalized what had been accomplished by AR in the 1990s.⁴⁷ (Jacques Gansler noted in his review of our monograph that he also specifically instructed the task force to simplify and shorten the 5000 Series documents as well.)

Before describing what we did (and did not) find in the 5000 Series, we must note that during the interview phases of our study, several of the people we talked to (with whom we had shared our 5000 Series findings) argued that the DoD 5000 Series was not where acquisition practitioners should necessarily expect to find guidance on *all* aspects of acquisition reform. They argued that such information might more appropriately be sought and found in other publications relevant to specialist functions (e.g., the Federal Acquisition Regulation (FAR) and the Defense FAR Supplement (DFARS) for contracting and procurement personnel, or the Chairman of the Joint Chiefs of Staff Instruction on Requirements Generation (CJCSI.01B) for the people who do requirements determination).

While the above argument makes practical sense (it would be unwieldy to try to capture every detail of all AR initiatives in the 5000 Series), it is still the case that the DoD 5000 Series is the program manager's "bible"—i.e., the place where PMs are supposed to go for policy guidance on how they are supposed to do their jobs and what they can and cannot do. Given that PMs have been designated as the responsible parties, that means they are the ones who must orchestrate the efforts of the *entire* acquisition community (e.g., requirements determiners, contracting personnel, testers and evaluators, financial managers, engineers, etc.) to make the acquisition proc-

⁴⁵ Prior to the 5000 Series, DoD relied on the "3200 Series" documents, which date to the 1960s, to specify R&D and procurement policies and procedures.

⁴⁶ For a succinct and well-written history of the 5000 Series through the 1997 version, see Ferrara (1996).

⁴⁷ The 2001 version of the 5000 Series, like the previous versions, reflected the efforts of a joint DoD task force assigned to do a "rewrite" of the previous (in this case, 1997) version of the series. The 2001 version thus reflects a joint consensus among its authors about: (a) what from AR in the 1990s *merited* inclusion in acquisition policy, and (b) from that, what was deemed appropriate (in the administrative sense) for inclusion in the 5000 Series, as compared to putting it somewhere else for reference—e.g., the Defense Federal Acquisition System Regulations Supplement (DFARS).

ess work. Accordingly, we took the view that it was not unreasonable to expect the 5000 Series to contain, if not detailed guidance on every initiative, at least mention of the initiatives and pointers or references to where guidance does exist. This is important so that PMs will be able to understand (a) what is possible, and (b) what they would be justified in asking people to do (or to at least consider doing) to help them (PMs) keep their programs on track.

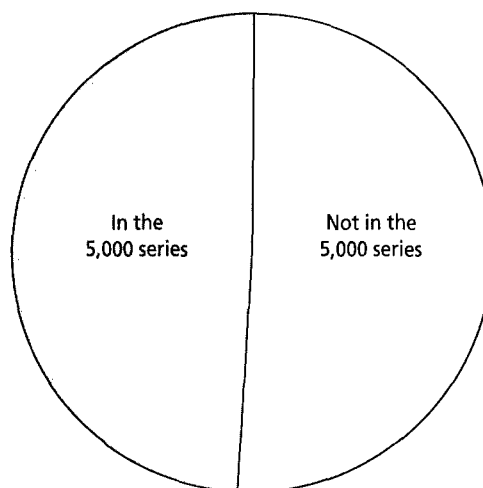
So, as noted earlier, our review of the 5000 Series was conducted on the 2001 version of the series. We used electronic ("pdf") copies of the 5000 Series documents and employed keyword searches to find either explicit mention of specific initiatives, or phrases and terms closely enough related to the initiatives that one would be justified in saying that the initiative was mentioned.

As shown in Figure 2.7, using that approach we found that just under 50 percent of the 63 AR initiatives from the 1990s received mention in the 2001 version of the DoD 5000 Series.

Some of the initiatives not mentioned anywhere in the 2001 version of the 5000 Series documents were:

- Alternate Dispute Resolution
- Better Post-Award Debriefing
- Greater Use of Parametric Cost Estimation
- Rights in Technical Data and Computer Software
- Use of EDI/E-commerce
- Contractor Maintained Design Configuration

Figure 2.7
Percentage of Acquisition Reform Initiatives in or out of DoD 5000 Series



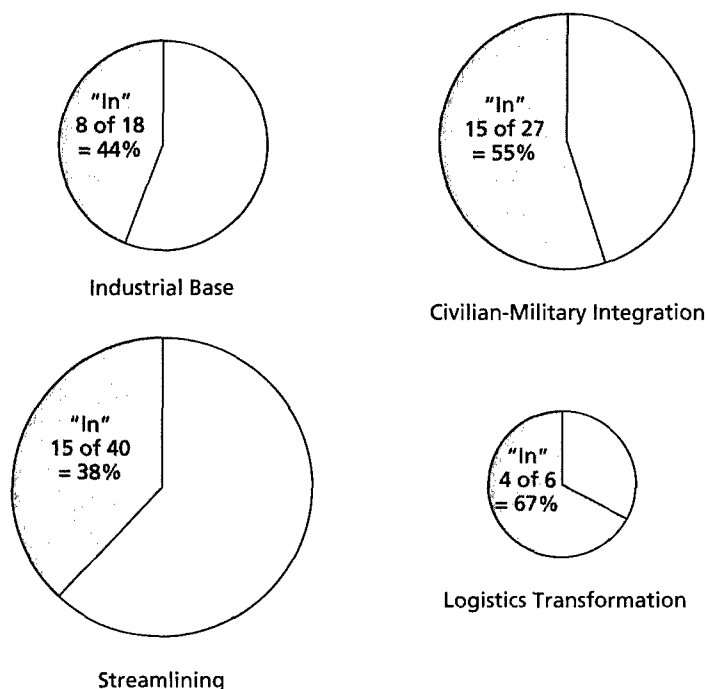
- Software Rapid Prototyping
- Streamlined ECP Review and Approval
- Elimination of Non-Value-Added Inspection and Test
- Elimination of Redundant Oversight
- Reduced TINA Sweeps
- Reduction of Contractor Purchasing Reviews
- Risk-Based DCAA Oversight
- Streamlined Non-Conforming Material Process
- Streamlined Government Property Management Requirements
- Contractor Cost Sharing

This finding does not necessarily mean that the 2001 version of the 5000 Series was fatally flawed in how well it captured the effects of AR in the 1990s. As noted earlier, the joint DoD group that produced the 2001 version of the 5000 Series went through a vetting process to ensure that what was finally included in the rewrite merited inclusion—both from a substance perspective and an administrative perspective. Lack of mention, therefore, may simply reflect a judgment by that group of differing degrees of relative importance among the initiatives on our list. Nevertheless, the list of missing initiatives above—selected here because they all would be considered important by industry—shows that the 5000 Series did fail to include some reasonably important AR initiatives from the 1990s.⁴⁸ Extending the above analysis, we also conducted a conditional analysis of the 5000 Series, using the thematic break-outs outlined earlier in this chapter. The results are shown in Figure 2.8. Clearly, DoD 5000 coverage varies significantly by theme, with logistics transformation, total life-cycle cost management, and civil-military integration matters more comprehensively covered (albeit by a smaller number of initiatives over smaller conditional samples) than either the industrial-base or streamlining themes.⁴⁹

The findings shown in Figure 2.8 provide an interesting result: given that two of the principal thrusts of the acquisition reform effort in the mid-1990s were to streamline processes and to improve the health and competitiveness of the industrial

⁴⁸ We did not check to see whether the missing initiatives we've selected appear in the FAR or the DFARS. All of the initiatives shown, however, are ones that a PM might well want to have considered in contract dealings with the suppliers and contractors supporting his or her program.

⁴⁹ In his review comments, Jacques Gansler noted that the three topics of logistics transformation, life-cycle cost management, and civil-military integration were very broad efforts that had not received strong attention in earlier 5000 Series policy, so they were intentionally emphasized in the new series. Initiatives falling under the industrial base and streamlining themes, on the other hand, because those two topics had already received earlier emphasis, did not require as much mention again in the new series but instead could safely be covered by lower-level, functional-area directives and guides.

Figure 2.8**Inclusion of Acquisition Reform Initiatives in DoD 5000 Series According to Theme**

NOTE: Some initiatives appear in multiple categories.

RAND MG291-2.8

base (by broadening the supplier base and increasing the scope for commercial procurements), one might have expected greater emphasis on these two areas in the 2001 version of the DoD 5000 Series than what we found.

DAU Curriculum: The Curriculum for Program Managers Covers All of the 63 AR Initiatives—Coverage for Other Students Is More Selective

The Defense Acquisition University (DAU) provides education and training for defense acquisition professionals. Certification courses and other training for program managers (PMs) and program management staff are provided by DAU's Defense Systems Management College—School of Program Managers (DSMC-SPM), while personnel in other career fields that support the acquisition process (see the list below) can take certification, training, and professional-development courses at other DAU learning sites—both at Fort Belvoir, Virginia (where the DSMC-SPM and DAU Headquarters is located) or at other DAU locations across the country, or via

courses offered online for “distance learning” and self-paced instruction over the web.⁵⁰

As described in Chapter 3 of the DAU Catalog, the “acquisition professionals” attending DAU are drawn from the following career fields:

- Life Cycle Logistics
- Auditing
- Business, Cost Estimating, and Financial Management
- Contracting
- Facilities Engineering
- Industrial and/or Contract Property Management
- Information Technology
- Manufacturing, Production, and Quality Assurance
- Program Management
- Purchasing
- Science and Technology
- Systems Planning, Research, Development and Engineering
- Test and Evaluation.

Over the course of their careers, Army and other DoD personnel in the above career fields are given the opportunity to take courses at DAU. The DAU Catalog for 2003 lists 86 distinct courses: 74 offered as resident courses at the various DAU locations (7 of which include some online distance learning in addition to resident training) and 12 offered as online courses only.

The DAU’s central role in educating the acquisition workforce, combined with the idea that AR initiatives need to be widely integrated into education and training to be successful, make it natural to ask how many of the AR initiatives of the 1990s have been incorporated into the DAU curriculum. To answer that question, we provided the Curriculum Development and Support Center (CDSC) at DAU with a list of the 63 AR initiatives we identified (accompanied by a short description of each initiative) and asked DAU to tell us which initiatives are taught, discussed, or otherwise covered in the DAU curriculum.

The CDSC classifies DAU courses into five subject-matter areas:

- Program Management (PM)
- Contracts (CON)
- Business, Cost Estimating, and Financial Management (BCF)
- Logistics and Sustainment (L&S)
- Engineering and Technology (E&T).

⁵⁰ For a description of DAU, including the courses it offers, its Annual Report, and other information, see <http://www.dau.mil/>.

Some DAU courses are mandatory for certification at different levels within the acquisition profession. Others are characterized as desirable in order to enhance skills and stay current with acquisition-related legislation, policies, and procedures. Other DAU courses are assignment-specific, i.e., required for certain assignments or billets rather than for certification in a career field. In addition to its full-fledged courses, the DAU offers a varying menu of self-paced modules—currently including some with built-in assessments and certificates, others for awareness only—to help personnel meet the continuous learning requirements that have been established for the AT&L workforce DoD-wide.

The breakdown of the DAU curriculum provided to us by the CDSC (using the above subject matter areas) shows that *all* of the 63 AR initiatives identified in our study are covered or addressed in some way in the DAU curriculum. Table 2.2 shows the results. The middle column displays, by CDSC subject-matter area, the number of courses reviewed by the five CDSC program directors in their respective subject-matter areas. The rightmost column shows the percentage of the 63 initiatives that are being taught or covered in some way by the courses shown in the middle column, along with the actual number of initiatives covered. We characterized an initiative as “covered” if the CDSC data showed at least one course in the subject-matter area that covered the initiative.

The fact that all of the 63 AR initiatives are being taught somewhere among the DAU courses taken by PMs is consistent with what we learned from our interviews with Army PMs (as presented in Chapter Four), who told us that DAU is doing a good job of informing PMs and their staffs about AR ideas, concepts, and options. However, as we move down the table, the percentage of coverage drops off. The 84 percent inclusion percentage for the Contracts subject-matter area (CON), for example, means that a “contracts specialist” taking all 30 of the courses offered in the Contracts area would be exposed to 53 of the 63 AR initiatives considered in this study. However, a contracts specialist taking fewer than all 30 courses offered by DAU might learn about less than 84 percent of the initiatives. Similarly, business

Table 2.2
Percentage of AR Initiatives Covered in Each DAU Subject Matter Area

CDSC Subject Area	Number of Courses Considered	Percentage of AR Initiatives Included
PM	6	100% (all 63 initiatives)
CON	30	84% (53 initiatives)
L&S	8	89% (56 initiatives)
E&T	24	68% (43 initiatives)
BCF	9	37% (23 initiatives)

specialists taking all 9 of the courses DAU offers in business, cost estimating, and financial management would learn about 23 of the 63 AR initiatives we have considered in the study.⁵¹

The next logical step in the investigation of how AR is being taught at DAU would be to list the specific courses one would have to take in each subject-matter area to get the benefit of the AR coverage provided in that area. (That information can be extracted from the data referenced in Appendix F.) With that information, combined with registration data from DAU, it would be possible to determine the probabilities that PMs, contracting officers, logistics and sustainment specialists, engineering and technology specialists, and business personnel at various levels of responsibility are taking those courses. A second part of possible follow-on research, with a particular Army focus, would be to examine whether the Army is sending the right people to take the courses that DAU provides. We have not collected the data in this study to do that, but such an analysis would be worthwhile as a way to explore in more detail how AR is being taught at DAU. Such an analysis would represent a way to make the connection between the findings for DAU presented above and the normative observations earlier in this chapter (see Figure 2.6) about how the AR initiatives of the 1990s “should” be communicated across the various functional areas that are either directly and indirectly connected with the acquisition process.⁵²

⁵¹ Of course, not every person in every career field necessarily needs to be educated about *every* AR initiative. Some career fields (and thus courses in those fields) may not be affected or “touched” by some AR initiatives.

⁵² After reviewing this discussion of DAU’s coverage of AR (as we asked them to do), DAU personnel noted that although it will always be the case that DAU must rely on the functional community to set the content before DAU can deliver it, DAU’s evolution as the corporate university for the AT&L workforce is ongoing, and new options for learning continue to be made available.

For example, in FY03 DAU has made further progress in implementing its “Performance Learning Model” (PLM) environment, which is intended to give acquisition workers more control over their learning by using the new channels that are now available with modern information technology. These new learning products and services include an expanding continuous learning program made up of functional “communities of practice” allowing practitioners to link up with experts in virtual communities seven days a week, 24 hours a day. In addition, DAU has introduced new tools for knowledge dissemination and performance support that allow acquisition workers to acquire job-specific knowledge and just-in-time training at the point and time of need. Whenever an AT&L workforce member needs to learn about an initiative or new construct, for example, she or he can acquire it through a Continuous Learning Module (as of the fall of 2003, DAU offered more than 53 such modules), through Communities of Practice (CoP) (e.g., the PM CoP), through “Performance Support” (i.e., consulting) from DAU personnel, and from Rapid Deployment Training (RDT). Using these different channels, the PLM is meant to serve as the “lifeline” to knowledge and skill development in the conduct of day-to-day performance. In that respect, the PLM is the vehicle intended to allow acquisition practitioners to become “day-one performers”—provided they take advantage of what the PLM environment has to offer. For example, DAU has developed and disseminated (on its website) RDTs for the new (May 2003) DoD 5000 Series acquisition policy, the new Planning, Programming, Budgeting, and Execution (PPBE) process (as announced in Management Initiative Decision 913 in May 2003), and the new Joint Staff policy for Joint Capabilities Integration and Development as defined in the new (June 2003) CJCS 3170.01 “JCIDS” documents (Instruction and Manual)—replacing the old CJCS 3170.01 Instruction on Requirements Generation.

Summary

The AR movement began in the early 1990s with renewed calls by senior DoD leaders to make the acquisition process more responsive, effective, and efficient ("faster, better, cheaper"). To accomplish those goals, multiple AR initiatives were launched (mainly in the 1994–1996 period) affecting virtually every aspect of the acquisition process—from requirements determination to procurement to operations and support. By the end of the 1990s, recognizing the need to institutionalize AR and fix responsibility for tracking results, the AR movement produced a revised version of 5000 Series acquisition policy that reflected many (but not all—with some large gaps) of the concepts of AR, and designated program managers as the parties who would henceforth be responsible for "total life-cycle system management."

Now, with the transition from AR in the 1990s to AE in the 2000s, the central role of PMs has been made even stronger. Under AE, and the even more recent versions of 5000 Series policy now being circulated, program managers are being called upon to apply the tools developed under AR even more aggressively than they were in the 1990s in order to make the acquisition system work better than it ever has in the past.

In this chapter, we have shown that moving from the 1980s to the 1990s, the goals of AR shifted from trying to reduce waste, fraud, and abuse (both real and perceived) in transactions with contractors, to trying to make the acquisition process more responsive, effective, and efficient. Based on a count of AR initiatives covered or mentioned in 5000 Series guidance (both the 2001 version and the more recent version), the policy follow-through on the AR initiatives of the 1990s has been mixed—at least in terms of what the 5000 Series tells program managers about what they can try to do or ask others to do. In terms of the policy follow-through over an administration change, the AR initiatives of the 1990s *can* be related to the new goals of AE, but the AE movement is less interested in pursuing *process* change as such and more interested in achieving outcomes. Finally, we have observed that the curriculum at the Defense Acquisition University has generally kept pace with the many AR initiatives launched in the 1990s, but that the job of educating and training the extended acquisition workforce about all they need to know about AR is still a work in progress.

With these findings in hand, we now turn to what people actually working inside the acquisition system—at Army headquarters and in OSD, in the Army program management community, and in industry—think about what AR in the 1990s accomplished, what it failed to accomplish, and what things they believe still need to be done.

The Perspective of Army Headquarters and the Office of the Secretary of Defense

In this chapter we present the results of interviews about acquisition reform (AR) with policymakers in the Pentagon. Our goal was to capture how senior leaders at Army Headquarters and in the Office of the Secretary of Defense (OSD) view the acquisition process today, following the AR efforts of the last decade. What, in their view, has worked, what hasn't, and what's needed next?

The Headquarters Perspective

For the Army headquarters view, we met on three occasions with Kenneth Oscar, the Acting Assistant Secretary of the Army for Acquisition, Logistics, and Technology (ASA[ALT]).¹ Oscar was the Acting ASA(ALT) from January 2001 through March 2002 and the original sponsor for this study. We also spoke, in separate meetings, with personnel in the ASA(ALT) Directorates for Acquisition Policy and Procurement; Plans, Programs, and Resources; and Integrated Logistics Support.

What Has Been Good About Acquisition Reform?

As the Acting ASA(ALT), Oscar expressed the view that AR has improved the acquisition process. In his view, AR has made it possible for each acquisition process to work more along the lines that he, as the leader for acquisition in the Army, wanted to see it work. For example, he noted that the use of Integrated Process Teams (IPTs) has helped mitigate the otherwise natural tendency of functional staff to talk only with their functional counterparts as they communicate up and down the chain (the "stovepipe" problem). He also indicated that the move to greater use of "evolutionary acquisition" (the AR initiative that encourages PMs to acquire systems in "blocks" or

¹ The ASA(ALT), reporting to the Secretary of the Army, is the Army Acquisition Executive (AAE). Under the Army's new organizational structure for acquisition as finalized over the FY01–02 period, the "acquisition community" in the Army, including all program managers, the program management offices that support them, and the flag-level program executive officers (PEOs) they report to, along with all Army procurement and contracting offices, are part of the ASA(ALT) organization within the Army Secretariat.

"increments" to reduce technical risk and meet delivery schedules) will be a good thing for the Army.

Overall, Oscar characterized the AR movement in the 1990s as having been energized by Secretary Perry's "Mandate for Change" speech in 1994, and as having achieved three very important legislative accomplishments over the period: the Defense Acquisition Workforce Improvement Act (DAWIA) of 1990, the Federal Acquisition Streamlining Act of 1994, and the Federal Acquisition Reform Act (FARA) of 1996. In his view, those legislative actions (along with the AR efforts to internally reform the acquisition process—e.g., the rewrite of the 5000 Series²) have helped to improve the education and skills of the acquisition workforce, remove unnecessary laws, and reduce regulations—thereby contributing to an environment that allows for more creative approaches to acquisition than were previously possible.

What Has Been Bad About Acquisition Reform?

Oscar acknowledged that rather than following a single reform "roadmap" from the beginning (as the UK Ministry of Defence has done, for example, in its Smart Acquisition Program³), the DoD elected to use a more "bottom-up" approach intended to encourage and empower. An unintended result of that approach, he noted, is that "We don't have a good summary of what's happened over the last ten years—and that's a deficiency. Documents exist, and there is knowledge in the heads of people like me, but nobody has pulled them together."⁴ He also felt that the AR movement, in retrospect, had greater success in the 1992–1996 period (when it was able to go after the low-hanging fruit of workforce improvement and regulatory and statutory reform) than it did in the 1996–2000 period, when it began to struggle with more

² Oscar was referring to the 2001 versions of DoD Directive 5000.1, *The Defense Acquisition System*; Instruction 5000.2, *Operation of the Defense Acquisition System*; and DoD 5000.2-R, *Mandatory Procedures for Major Defense Acquisition Programs (MDAPs) and Major Automated Information System (MAIS) Acquisition Programs*. These documents were the "AR-driven" rewrites of the 5000 Series acquisition policy documents, the previous versions of which were from 1996. We have noted earlier, but it must be said again here, that in October 2002, after our interviews with Oscar, the Deputy Secretary of Defense cancelled all three of the 2001 version 5000 Series documents and OUSD(AT&L) released even newer versions of all three. The goal of this newest version of the 5000 Series is to afford greater flexibility to program managers than what the 2001 version provided. The 5000.2-R document, for example, has been recast as a "guidebook" rather than a statement of "mandatory" procedures. On October 8, 2004, the OUSD(AT&L) provisionally released an interactive, web-based version of the Defense Acquisition Guidebook to "provide the acquisition workforce and their industry partners with an instant on-line reference to best business practices as well as supporting policy, statute, and lessons learned." See <http://akss.dau.mil/dag>.

³ Shuna Lindsay, "UK Smart Acquisition: 'Faster, Better, Cheaper,'" unpublished RAND research, 2002.

⁴ That observation is partly why we have taken the approach we have in this study: defining AR by listing the many AR initiatives.

difficult challenges, such as better integrating acquisition and logistics⁵ and improving contracting for services.

Notwithstanding the progress that has been made, however, Oscar also emphasized that much remains to be done. He expressed the view that acquisition is “still too bureaucratic” and that Army HQ was still “a problem” in that it is still too slow to approve programs, too quick to change them, and much too quick to take money away and stretch programs out from year to year. He also noted that although many reforms were aimed at making life easier for PMs, contracting officers, and others, it hasn’t always worked out that way. He noted, for example, that greater emphasis on competition, designed to open markets in order to bring in new ideas, has caused more work for contracting officers, who have often been forced out of their “comfort zone” after many years of interaction with a single contractor. He also made the general observation that the “human effect” (i.e., the difficulties that arise when people have to deal with change of any sort) has not always been taken into account in the AR movement.

What Could Be Improved About Acquisition Reform?

Oscar looked forward to the day when DoD and its contractors, under the Cost as an Independent Variable (CAIV) initiative, can get to the same point commercial firms have gotten to when they can do things like “decide they want to produce a VCR that sells for \$100—that’s the goal because that’s what the market will bear and customers will be willing to spend—no more—and the engineers have to produce the best VCR they can that will cost \$100—period.”⁶

⁵ Our discussions with Army HQ personnel in the ASA(ALT) Directorates for Acquisition Policy and Procurement; Plans, Programming and Resources; and Integrated Logistics Support centered mainly on two logistics-related AR initiatives: Reduction in Total Ownership Costs (RTOC) and Logistics Transformation. (The latter includes the Total Life-Cycle System Management (TLCSM) and Performance Based Logistics (PBL) initiatives, both of which entail the idea of assigning responsibility for total system life-cycle costs to program managers.) In general, the view within ASA(ALT), both on Oscar’s part and among the ASA(ALT) staff we spoke with, is that the integration of acquisition and logistics is still very much a work in progress—both for new systems still in acquisition and for fielded systems now in the Operations and Support (O&S) phase of their life cycle. In the former case, the challenge is to find ways to ensure that reliability, maintainability, and sustainability are properly considered when systems are being designed, since for most systems a large portion of total life-cycle costs are driven by what is done in the design phase. This has been a challenge for the acquisition process over many, many years, mainly because of the pressure on (and the tendency for) PMs, with budgets that are *always* limited, to focus on performance first and foremost. In the latter case, for systems already in their O&S phase, the biggest challenge is finding ways to give PMs greater influence over the large amounts of O&S dollars that, for unavoidable organizational and resource-control reasons, they simply will never be able to control directly. (Oscar noted that the Army’s Recapitalization program for many of its legacy systems was trying to step up to the latter problem through its plan to give PMs control of the Army funds programmed and budgeted for recapitalization—in effect making the recapitalization like a procurement program.)

⁶ One of our reviewers notes that the Defense Advanced Research Projects Agency initially adopted just this approach in its plans for developing the Global Hawk system. When design issues arose affecting performance, however, the decision was made to hold the line on requirements, and the cost of the system was allowed to

Only partially tongue-in-cheek, he also proposed a “rule” he has developed to reduce costs: “Since we always wind up buying half or less of the quantity we originally say we need, we should always set up the factory or production process to build half of whatever amount we originally think we’re going to buy.” He argued this rule would make sense because what tends to drive costs “is not the production but rather the upfront production investment.”⁷

Designing better contracts with appropriate incentives is the key area where Oscar felt most strongly that much more work is needed. In our meetings, he repeatedly remarked that many contracts are still being written in ways that produce results *opposite* to what the government really wants. He offered spares contracts as an example: “If we solicit for 50 spare parts a year for a particular piece of equipment, the only way the contractor can increase his profit is by selling more spare parts. If we instead solicit for the contractor to keep the equipment in spare parts for five years, he can increase his profit by making the parts last longer.” As a way to summarize his views on the contracting challenge, we will quote from a paper⁸ he gave us, which he wrote in 2000 while serving on an intra-governmental assignment at OMB as the administrator for the Office of Federal Procurement Policy:

Our [the government’s] goal is to get the best product or service for the price. The contractor’s goal is to give us the best product or service while reducing risk and increasing profit. The key to a good contract is to structure it in such a way to align our goals with the contractor’s goals. . . .

Competition is the best incentive, but it is not sufficient. All contracts cause behavior, and the contracting officer needs to tailor the contract structure to have the desired result. All contracts should contain incentives. Contracting officers should ask contractors what type of incentive would be best in their situations. Contracting officers should use a wide array and amount of incentives in contracts. We should strive to create a win-win situation in all contracts and make sure behavior is aligned with the product or service we are buying.

grow—thereby providing an example and reminder that, in the end, DoD is *not* a business that is producing products for sale in a competitive marketplace where cost is a driving consideration.

⁷ In this same vein, Oscar applauded the OSD decision that the OSD Cost Analysis Improvement Group (CAIG) estimate will be the default life cycle cost estimate (LCCE) for new systems (DepSecDef, October 30, 2002 memorandum on Defense Acquisition, Tab F, “Resource Estimate Procedures,” paragraph F1). Since the CAIG estimates are almost always larger than service estimates, Oscar believes the OSD decision will lower contract-failure risk due to cost.

⁸ Kenneth J. Oscar, *Contract Incentives*, Office of Management and Budget (OMB), Executive Office of the President, December 2000 (written when Oscar was serving at OMB from June to January 2000, detailed from his job as Deputy Assistant Secretary of the Army for Procurement). In addition to his own paper, Oscar recommended a paper by Steven Kelman, *Remaking Federal Procurement*, John F. Kennedy School of Government, *Visions of Governance in the 21st Century*, 2002, available at <http://www.ksg.harvard.edu/visions/publication/kelman.pdf>.

The OSD Perspective⁹

For the OSD view, we met with Donna Richbourg, the Director for Acquisition Initiatives (AI) in the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics (OUSD[AT&L]), and members of her staff, including LeAntha Sumpter, Deputy Director for Acquisition Processes and Policies.

From the beginning and throughout its run in the 1990s, the AR effort was promoted and led by OSD. Acquisition reform received sustained attention from Secretaries William Perry and William Cohen and was a central area of effort for the AT&L Under Secretaries (Paul Kaminksi and Jacques Gansler) who served under them. Given that history, rather than asking our interviewees in the OSD Acquisition Initiatives office to provide their views on something they had been directly working on for more than a decade, we instead showed them our list of initiatives and asked for their reactions on how *we* (in this study) had begun to review, classify, and evaluate what had been done.

How Well Does Our List of Initiatives Cover Acquisition Reform?

Taking that approach, the perspective of the Acquisition Initiatives (AI) office was that some items on our list were too “micro” to justify being called “initiatives.” At the same time, however, they felt that some of the ways we had chosen to group and classify the initiatives (e.g., our grouping according to the AR themes of Industrial Base, Streamlining, Commercial-Military Integration, and Logistics Transformation, for example (as shown in Figure 2.4 in Chapter Two) were “too macro.” A further concern was that we had not included any mention of efforts aimed at achieving greater interoperability.¹⁰

On our findings concerning coverage of the AR initiatives in the 5000 Series documents, OSD(AI) (as well as staffers we talked with in the ASA(ALT) Policy and Procurement Directorate in the Army) noted that discussion of many of the missing items could be found in the Federal Acquisition Regulation (FAR), the Defense Fed-

⁹ Chapter Two, in its discussion of how the AR initiatives of the 1990s relate to the five Aldridge goals for Acquisition Excellence (AE) and associated OUSD(AT&L) actions, provides additional information on the headquarters perspective at the OSD level.

¹⁰ In our view, interoperability (both across the U.S. component services as well as with allies and coalition forces) is more a performance feature of the system being acquired (e.g., lethality, agility, or sustainability) than it is a means (e.g., streamlining and commercial-military integration) for pursuing the ultimate goals of AR (“faster, better, cheaper”). That said, it is true that in the 2001–2002 period (particularly after the September 11 attacks, the initiation of the global war on terrorism, and the war in Afghanistan), senior OSD and Joint Staff policymakers began to significantly increase their emphasis on the need to build jointness and interoperability into new systems “from birth.” So the AI Office’s concern about interoperability issues is understandable.

eral Acquisition Regulation (DFAR), or in the Chairman of the Joint Chiefs of Staff Instruction (CJCSI 3170.01) on the Requirements Generation System.¹¹

How Well Have Acquisition Reform Initiatives Been Implemented?

In terms of implementation, our OSD interviewees believe that it takes at least two years before the effect of any AR initiative can begin to be felt—and that assumes that training in the use of the initiative begins promptly.

Finally, our OSD interviewees acknowledged that acquisition reform had not achieved uniform success in everything that had been tried. That said, they expressed the hope that even as lessons continue to be learned, what has been accomplished under AR in the 1990s will help the process to break out of its historical tendency to cycle back and forth between the same problems over and over again.¹²

Organizational Change and the Future of Acquisition Reform

We will conclude this chapter by noting what certain organizational changes (in the offices we talked to in OSD and the Army) suggest about what headquarters wants from AR in the future. As reflected in the organizational name changes and rearrangements we are about to describe, it is clear that headquarters, both in OSD and in the Army, now recognizes that when pursuing acquisition reform, it is vitally important to always keep in mind and continually emphasize to the field that AR is not (and never will be) an end in its own right but rather something that should always be viewed as a means toward other ends.

¹¹ All three of these documents are named as references at the front of 5000.1, *The Defense Acquisition System*. As noted earlier, however, and notwithstanding the OSD point, we would argue that as the central source of policy guidance for PMs (who hold the final responsibility for coordinating the efforts of everyone involved in the acquisition process, including requirements-determiners and contracting officers), it is not unreasonable to expect the 5000 Series to contain “pointers” to the relevant sections of the FAR, DFAR, and CJCSI 3170.01 for serious AR initiatives, so that PMs can know what they can reasonably expect (and encourage) their contracting and requirements counterparts to take into account as they do their jobs.

¹² We note the comments in the Foreword to a 1988 report on *Defense Acquisition: Major U.S. Commission Reports (1949–1988)*, prepared for the Defense Policy Panel (Les Aspin, Chairman) and Acquisition Policy Panel (Nicholas Mavroules, Chairman) of the House Armed Services Committee, 100th Congress 2nd Session, November 1, 1998:

Military procurement reform may indeed be like the weather.

As this volume shows, everyone does talk about it; this report details six executive branch commissions that have poked and probed the procurement issue over the last four decades. But, like the weather, no one seems to do much about it; this report shows that the bulk of the cures proposed as far back as 1948 were still being promoted in 1983 because they had never been implemented. . . . Four recurring issues—professionalism, streamlining, the “revolving door,” and acquisition organization—require a closer look. . . . Perhaps the next executive commission on acquisition should be created, not to propose reforms, but to implement them.

In the AR movement in the 1990s, AR itself became a topic for meetings, conferences, newsletters, an annual "Acquisition Reform Week," and, in the Army, "roadshows" sponsored by headquarters organizations. That was probably necessary as a way to spread the word about new approaches that could be used, but it had the unfortunate side effect of making AR itself begin to appear as being the "end" to be pursued and monitored. It did not help that even as this was happening, high-profile weapon systems (e.g., weapon systems covered by the Selected Acquisition Report (SAR) reports to Congress) in all the services, the Army included, continued to exhibit cost, schedule, and performance problems.¹³ Under these circumstances, it is not surprising that the headquarters emphasis would shift from pursuing "acquisition reform" to achieving "acquisition excellence."¹⁴

Put another way, the headquarters emphasis (particularly from OSD) is now much more about giving PMs as much latitude as possible to use their own judgment (and, to be sure, the new AR-based tools they now have) to do the *what* of acquisition (acquiring systems faster, better, and cheaper) and much less about telling them *how* they should do it (e.g., by devising and promulgating yet more methods and initiatives that they "should" or "must" follow).¹⁵ In effect, OSD leaders have returned

¹³ See, for example, "Pentagon Weapons' Costs Rise By 15 Percent Since 2001," Bloomberg.com, February 11, 2002:

Many of the Pentagon's 79 major weapons programs have grown in cost by 15 percent, or over \$105 billion, since fiscal 2001—a two-year increase that's the largest since the early 1980s, according to government documents. . . . Before fiscal 2001, the Pentagon's annual cost growth on major acquisition programs back to the mid-1980s was plus or minus 1 to 3 percent. "We have not experienced double-digit cost growth since the early 1980s when weapons costs jumped 14 percent in 1982 from 4 percent in 1980." . . . The cost growth reflects Pentagon estimates of how much it must add to many of its 79 programs to pay for technical problems and schedule slips; some of the growth also is the result of PMs seeking to upgrade with technology that wasn't available when the projects started. . . . [and] a considerable amount of the 15 percent cost growth is due to more realistic costing according to a Pentagon analysis.

The Selected Acquisition Report (SAR) reports are submitted annually (with the President's budget) and updated quarterly. They summarize the latest estimates of cost, schedule, and technical status of major defense acquisition programs. In the SAR update as of September 30, 2002, 17 programs are shown for the Army, for example. A total of 11 out of the 17 show positive percent increases in total program cost compared to the last baseline estimate.

¹⁴ As further motivation for the shift from AR to AE, it is instructive to consider statements made by senior DoD and defense industry leaders at a February 2001 Defense Reform 2001 conference held in Washington, D.C. and sponsored by the American Institute for Aeronautics and Astronautics. Addressing issues of continuing high levels of financial risk for industry (resulting from still-unstable funding, program uncertainty, and inconsistent production levels), continuing lack of innovative contract incentive mechanisms, and continuing levels of excess infrastructure (due in part to the lack of contract incentives to reduce infrastructure), it is clear that as the new administration took office, the consensus from DoD acquisition leaders and their industry counterparts was that more work was needed to accomplish the "faster, better, cheaper" objectives of AR.

¹⁵ See "Pentagon Leaders Prepare New Buying Rules Intended To Shift Culture," *Inside the Pentagon*, September 5, 2002, statement by Mr. Richard Sylvester, Deputy Director for Acquisition Initiatives: "We're trying to get rid of prescriptive requirements by tailoring the how-to pieces," [but at the same time] "what we want in terms of outcomes remains constant."

to the idea of emphasizing the vision of what is to be achieved and letting the field proceed with less, rather than more, guidance.¹⁶

This shift in the headquarters perspective for the future has been particularly reflected in changes within OUSD(AT&L). The position held by Donna Richbourg when we interviewed her, Director for Acquisition Initiatives, was previously a congressionally appointed position: Deputy Under Secretary of Defense for Acquisition Reform, DUSD(AR).¹⁷ The creation of the DUSD(AR) position in 1994 was one of the milestones of the AR movement in the 1990s. After the new administration took office in 2001, however, the new USD(AT&L), E.C. "Pete" Aldridge, deliberately introduced the term Acquisition Excellence to replace Acquisition Reform, and by the fall of 2001, the DUSD(AR) position had been changed to Director for Acquisition Initiatives.

At the same time in the Army, as part of a larger reorganization of the ASA(ALT) office (but also following the OSD changes), the ASA(ALT)'s Director for Acquisition Reform became the Director for Acquisition Excellence.

Later, as part of a larger OSD reorganization in the fall of 2002, the separate AI office was eliminated and the Director for Acquisition Initiatives position was made subordinate to the Director for Defense Procurement—and in the same period, the 2000–2001 versions of the DoD 5000 Series acquisition policy documents were cancelled by the Deputy Secretary of Defense.¹⁸

Finally, at Army HQ, the ASA(ALT) office for Acquisition Excellence was moved to a new ASA(ALT) Acquisition Support Center (ASC), and as of this writing, based on the organization chart for the ASC on the web as of January 2003,¹⁹ there no longer appears to be a separate office anywhere within the ASA(ALT) organization focusing specifically on Acquisition Reform or (even) Acquisition Excellence per se.²⁰

¹⁶ In his review of this report, Jacques Gansler noted that the culture change and leadership literature, as reflected, for example, in the work of John Kotter of the Harvard Business School, argues that vision, strategy, and actions all must be made clear by leaders before followers will know what to do, and, therefore, he concludes that it is by no means a certainty that OSD's change in emphasis will produce new results that go beyond what has been produced before.

¹⁷ This position was previously held by Stan Soloway and, before that, by Colleen Preston.

¹⁸ Deputy Secretary of Defense (Paul Wolfowitz) Memorandum, "Defense Acquisition," October 30, 2002.

¹⁹ See <http://www.wasc.rdaia.army.mil/contacts/index.htm>.

²⁰ Programs are under way that allow the Army acquisition community to say that it is pursuing all five of the new Aldridge goals (achieving credibility and effectiveness in acquisition and logistics, revitalizing the acquisition workforce, improving the health of the industrial base, rationalizing weapon systems and infrastructure with defense strategy, and initiating high-leverage technologies), so we do not mean to imply or suggest that the Office of the ASA(ALT) should still have, or needs to have, a separate office focused on Acquisition Reform or Excellence.

The Army Program Management Community's Perspective

In this chapter we present the results of our interviews with members of the program management community in the Army—i.e., people working in Army Program Management Offices (PMOs) engaged in the day-to-day job of acquiring new systems for the Army.¹ As the people on the front lines of Army acquisition—i.e., the ones who must deal with all the players both inside and outside the Army to make the acquisition process work,² as well as the end users who will ultimately use the equipment being bought—PMs and their staff are the critical link in the acquisition chain. Their perspectives on AR—what it has made possible and what it hasn't—are critical, therefore, for understanding whether and how AR has made a difference in how the acquisition process will work going forward. Our purpose in this chapter is to capture and communicate those perspectives.³

Method

We interviewed a cross section of both military and civilian personnel working in Army program management. We asked participants to provide—on a not-for-attribution basis—their views about three issues: what has been good about acquisition reform, what has been bad, and what they would change. We conducted one-on-one interviews at two Army locations, and did a group interview at a third location. Over the course of the interviews, we met and spoke with more than 30 people

¹ As noted earlier, under the reorganizations that have taken place in the Army, it is now the case that Army program managers (PMs), the program executive officers (PEOs) they report to, and the program management offices they control, all are part of the ASA(ALT) organization.

² Those players are contractors on the outside, and R&D personnel, doctrine developers, contracting officers, financial managers, auditors, testers, etc. on the inside.

³ A RAND Arroyo Center study sponsored by the ASA(RD&A) and the U.S. Army Materiel Command in 1996, *Facilitating Effective Reform in Army Acquisition*, (Dertouzos et al., 1998), as part of its research approach, conducted a similar but much more extensive survey (3,000 personnel surveyed, 1,800 responses) of the Army acquisition workforce to obtain their views about AR. Where there is overlap in topics discussed, the findings and conclusions presented in this chapter are consistent with the more detailed findings of that earlier study.

in the Army program management community and obtained additional written comments from others who were unable to attend the interviews. Interviewees and respondents included one program executive officer (PEO), five deputy PEOs, eight PMs (seven of whom were military), ten deputy PMs (nine of whom were civilians), and roughly a dozen civilian staff members from various Army program management offices.

The interviewees and respondents were an experienced group, with everyone we talked to having at least 15 to more than 30 years of full-time involvement with Army program management activities and related functions. Everyone we interviewed had thus been engaged and involved with the Army acquisition process over the 1990s, the period of central interest for our study.

Before making our visits, we sent a list of the 63 AR initiatives in our database, along with short descriptions of each, so that our interviewees would understand what *we* meant by "acquisition reform." While it was clear that many looked at the list, it also became clear that none needed the list to understand what we wanted to talk about. Everyone we spoke with had very well-developed views and opinions on what acquisition reform had been about and how it had affected their work.

The same two RAND Arroyo Center team members were present at all of the one-on-one interview sessions. Three Arroyo individuals (the two from the one-on-one sessions, plus a third) were present at the group interview. Each Arroyo participant took his own notes at each session. All these notes have been combined to produce the summary presented here. All three Arroyo attendees have reviewed the material that follows, so the statements recorded here reflect a consensus among the project team members about what interviewees said.

This chapter is organized around the three key issues mentioned above: what was good about AR, what was bad, and what still needs to be done. Throughout the chapter, we have included actual interviewee statements, or paraphrases of their statements (edited for syntactical clarity). Those statements are enclosed in quotation marks without attribution to any particular individual. We are including the quotations to allow readers to hear what Army program management personnel had to say, in their own words, about acquisition reform. A complete list of the quotations from the Army PM community is given in Appendix E.

What Has Been Good About Acquisition Reform?

The AR Movement Has Helped Raise Awareness About the Need to Improve the Acquisition Process

Several interviewees noted that, in general, the AR movement has helped "raise consciousness" about the need to "do things differently" in acquisitions, thus making

some aspects of the job easier than they used to be. For example, one PM (military) noted that the Defense Acquisition Board (DAB) review and milestone approval for a particular program could not have been achieved without AR. A civilian deputy PM stated that AR has saved “a lot of dollars,” while another PM (civilian) noted that the AR process had led to “more openness” at higher levels of management and had created “more tolerance for changes.” The same individual mentioned that the milestone approval process has improved. As noted in Chapter Two, several members of the PM community emphasized the useful role DAU is playing in “teaching and preaching AR.” However, one person also noted that “most DAU instructors don’t have a clue about what PMs actually spend most of their time on each day.”

Some Specific AR Initiatives Have Been Helpful

Many of the interviewees cited specific AR initiatives that they felt had been helpful. The Modified Integrated Program Summary (MIPS) was mentioned as a great help in reducing the number of reports necessary for program management.⁴ Best-value contracting was described as a means of making it easier to select a contractor with “the right mix of technical, management, and cost performance.”⁵ Elimination of military specifications (“mil specs”), reduced Contract Data Requirements Lists (CDRLs), electronic processing, and the purchase card were mentioned as effective means of cutting the “red tape.”⁶ Several interviewees expressed approval for Alpha Contracting. One PM (military) said Alpha Contracting “works to build a team and joint effort.” The Single Process Initiative (SPI) was also mentioned as an effective idea for streamlining processes, while Other Transaction Authority (OTA)⁷ was cited

⁴ As described in *How the Army Runs* (2001), the MIPS is the primary Army decision document used to facilitate top-level acquisition milestone decisionmaking. Although not directly included on our list of 63 AR initiatives, the Army’s use of the MIPS has its origins in the AR efforts in the 1990s to streamline not only relations with contractors but also internal DoD management processes and reporting burdens on PMs.

⁵ In best-value contracting, contracts are awarded on the basis of “best value” rather than “lowest cost.” Thus, all relevant factors—cost, performance, quality, schedule, considered and potential tradeoffs—can be taken into account.

⁶ The elimination of mil specs was part of Secretary Perry’s policy of using performance specifications and commercial standards for defense systems acquisition solicitations and contracts rather than design-specific specifications and standards, the use of which would require a waiver from the component acquisition executive or a designee. Reduced CDRLs was another Perry initiative, which required management data items required from contractors to be limited to those essential for effective control, in order to reduce contractor costs associated with the preparation of unnecessary reports.

Electronic processing was part of Secretary of Defense Cohen’s March 1999 Defense Reform Initiative report, which established a target of 2010 for a DoD-wide electronic environment. This initiative allows major contract payments to be made by electronic funds transfers.

⁷ The OTA initiative allows certain projects to be based on arrangements other than contracts, grants, or cooperative agreements, thereby avoiding the legal and regulatory constraints that accompany the latter. The Defense Advanced Research Projects Agency (DARPA) is the most active user of OTA agreements in the DoD. Working in partnership with the Army, DARPA has been the lead organization taking the Future Combat Systems (FCS)

as being helpful with Future Combat Systems (FCS). Other initiatives described as helpful included Post-Award Debriefing, Parametric Cost Estimating, Multi-Year Contracting, Use of Commercial Warranties, Alternative Dispute Resolution, Revised Cost and Pricing Thresholds, and the use of Cost-Schedule Reporting Standards Tailored to Industry Guidelines.⁸ Some initiatives were praised for reinforcing actions that the PM community is already taking, while others were cited as leading to new ways of thinking and acting. For example, one PM noted that the Cost as an Independent Variable (CAIV) initiative has been helpful "because it formally recognized something PMs have always had to do."⁹ "Spiral development" was said to force "the warfighter to look at and understand the technology" while "capabilities-based acquisition"¹⁰ was praised for its effectiveness in "holding back the performance greed that continues to plague the Army."

through the Concept and Technology Development (C&TD) phase of the acquisition process, and it has made extensive use of OTA agreements doing that.

⁸ The Post-Award Debriefing initiative encourages better communications between government and suppliers, including better, more thorough post-award debriefings to losing competitors. Parametric Cost Estimating aims to reduce bid proposal costs during the contract award and administration process. Use of Commercial Warranties relates to the FASA 94 requirement that contracting officers take advantage of commercial warranties when available as a way to minimize costs and increase access to commercial products. (The NDAA for FY98, Section 847, repealed the *requirement* for warranties on major weapon systems acquisitions, but they may still be sought where appropriate and cost-effective.) Alternative Dispute Resolution is aimed at facilitating the resolution of disputes between government and contractors while avoiding formal litigation. It offers voluntary procedures to resolve disputes, including conciliation, mediation, fact-finding, arbitration, and the use of ombudsmen. Revised Cost and Pricing Thresholds involves modifications to the Truth in Negotiations Act (TINA), which required contractors to justify cost proposal and proposed contract prices with detailed cost or pricing data that had to be certified as to their accuracy, completeness, and currency. Under the initiative, the threshold for certification of such costs was raised to \$550,000. The Cost/Schedule Control System Criteria (C/SCSC), which required contractors to have an integrated management control system to plan, monitor, and control the execution of cost-reimbursable contracts, were modified to accept industry's earned-value management criteria.

⁹ Cost as an Independent Variable is used to develop strategies for acquiring and operating affordable systems by setting aggressive achievable cost objectives and managing the achievement of these objectives. Key stakeholders help set and achieve the cost objectives by identifying potential tradeoffs. As system performance and cost objectives are decided upon, the requirements and acquisition processes will make cost more of a constraint and less of a variable, while nonetheless obtaining the required military capability.

¹⁰ "Spiral development" and "capabilities-based acquisition" are both closely connected with "Evolutionary Acquisition" (EA), the AR initiative that calls for new systems to be acquired in "blocks" (or "increments") tied to technology maturity and producibility, rather than waiting until *all* the desired technology is available. The goal of EA is to get at least *some* new military capabilities into the field faster, while simultaneously pressing forward with ongoing technology development for application in successive increments of the system. Spiral development has its origins in software development, where developing performance requirements iteratively—through development, trial, and modification—has often proved more effective than attempting to specify all of the final performance requirements up front, at the beginning of the development process. Spiral development is supposed to take place *within* each of the blocks or increments of an EA. Capabilities-based acquisition is the term Secretary of Defense Rumsfeld introduced to describe a new philosophy for DoD acquisition, which emphasizes the pursuit of many kinds of new capabilities, both defensive and offensive, that reflect suppositions about *how* the United States might be attacked, without knowing *who* might launch the attacks. Ballistic missile defense, for example, in which the United States is attempting to develop capabilities to respond to ballistic missile attacks by unspecified "rogue states," is often cited as an example of capabilities-based acquisition. A second feature of the capabilities-based philosophy, one that has grown stronger since the September 11 attacks and the initiation of the global war

What Has Been Bad About Acquisition Reform?

While interviewees described much that they appreciated about the Army's acquisition reform efforts, they were also forthcoming in depicting the many problems that have plagued the AR movement.

Very Little Has Been Done to Give PMs Mechanisms to Hedge Against Risk

Many of the interviewees noted that although innovative AR approaches often generated increased risk, very little had been done to give PMs mechanisms for hedging against that risk. In other words, AR has encouraged PMs to be innovative and take chances, but it hasn't given them tools—e.g., access to additional resources or schedule flexibility or ways to revise performance characteristics—that would help them deal with the problems that can often arise when those chances are taken. As one deputy PM (civilian) put it, "AR gives PMs authority to take risks but not the resources."

Many complaints focused on issues of financial risk. A PM (military) said, "We reformed the acquisition process but not the financial process that supports it." For example, many PMs and their staff lacked the financial flexibility to implement reforms due to constraints on shifting funds from one appropriation category to another—"color-of-money" restrictions. During a group interview, it was noted that PMs are skeptical about their chances of gaining more control over financial decisions: "Recapitalization—PMs don't control the money. Next year the promise is to send money directly to PMs, but that decision has been delayed a year already, so people are skeptical as to whether it will really happen." Others noted that they never saw funds they were expecting: "We're told sustainment is fully funded, but PMs never see the dollars because of the route the money takes on its way to PMs." The lack of adequate financial support was seen as particularly troubling in that PMs are often considered to be just asking for hand-outs. As one PM (military) said, "Neither the operational nor the acquisition community has kept pace with the realities of risk management to get things faster, better, cheaper. Instead, PMs are viewed as 'toads in the road' who are always just asking for money."

The lack of resources—whether in terms of finances, personnel, or something else—has often meant that needed reforms cannot be implemented. For example, Alpha Contracting, which aims to improve contract negotiations by having all government and contract personnel work as a team throughout contract negotiations, requires a commitment of time and money from participating personnel—but if the resources are not available to fund a sufficient number of contractors to attend the

on terrorism, is that because the DoD now needs capabilities to be developed and deployed more quickly, development and production decisions (under EA) should be based more on capabilities already in hand (or possessing low technical risk) rather than pursuing more ambitious performance goals that call for capabilities that are *not* yet technically in hand.

regular meetings, the whole process can be delayed. In addition, even when many individuals and organizations involved in the acquisition process are on board with changes, other more risk-averse individuals can prevent change from happening. One PM (military) noted, "Under AR there is a more dynamic and uncertain environment, hence more risk. The problem is that many of the 'rice bowls'¹¹ are still either unwilling to accept that risk or are unwilling to provide the additional resources needed to create mechanisms to address it."

There Has Been a Lot of Activity, but Nothing Really New

Many of those interviewed complained that although AR has involved a lot of activity, nothing really new has been done. The true impact of many of the reforms was questioned. Several of the participants provided frank assessments of the changes—or lack thereof—brought about under AR. A senior deputy PEO commented that "AR has been good at cranking out policies, but hasn't made anything faster, better, or cheaper," a remark with which many others participating in the group interview concurred. One participant noted, "There is no such thing as acquisition reform. We've changed the way PMs deal with contractors, but nothing else has changed." Another stated that "the AR idea of 'partnerships' with industry is unrealistic." One PM (military) said that "Some initiatives—like simulation and modeling—are just buzzwords." Some suggested that even the changes that have occurred cannot necessarily be attributed to AR. For example, one participant pointed out that many of the cost savings made by PMs came about through traditional leadership techniques rather than any special reform initiative. AR was said to have left big acquisitions mostly unchanged.¹²

External Communities Do Not Provide Support

One frequently heard remark was that the external communities that are supposed to support PMs have not fully absorbed AR. As a result, true reform has not been possible. While PMs and PEOs were generally felt to have "gotten" AR, many others in the decision chain were said to be reluctant to participate. One individual submitted a written comment noting, "AR will remain suboptimized until they reform the financial, logistics, test, engineering, contracting, and legal communities. These communities can unilaterally kill any AR program, since they have full veto authority in most cases, while not being held accountable for their decisions." A similar view was

¹¹ A "rice bowl" is a particular area of expertise or responsibility over which an individual or organization wants to maintain control—rather than letting anyone else get involved in decisions.

¹² A reviewer notes that these views on the part of Army program managers as described here do not make clear whether their dissatisfactions are driven by a belief that most AR initiatives are flawed in some way and would not produce results even if fully implemented, or that the problem is that they have been frustrated in their attempts to implement what they would generally consider to be good ideas. In fact, both of these problems are present—as the verbatim PM comments reveal (see Appendix E).

expressed by a PM (military) in an interview: "Too many people can say no." The testing community was cited several times for its refusal to change. Among the comments heard: "The testing community is still in the old ways of doing business . . . The test community is still living 30 years in the past. . . . The test community is still focused on their reporting requirements rather than testing to fix. . . . Much more Army AR education is needed for testers and auditors." Other communities were also mentioned as being averse to change, including middle-level managers within OSD, logistics personnel, comptrollers, engineering, procurement/contracting, the Defense Contract Management Agency (DCMA), the Airworthiness Release Authority, government lawyers, and contractors, to name only a few.

Some interviewees mentioned problems associated with integrated product teams (IPTs). Under the IPT model, all relevant government and industry functions are brought together to form an "integrated decision team" with all necessary expertise to address and resolve problems at the earliest moment and lowest level possible. The intent of IPTs is to reduce time, cost, and part of the overhead for oversight, while improving the quality of solutions and products. However, many members of the PM community felt that, in practice, the use of IPTs can simply mean that there are more people to say "no" to whatever the team as a whole is trying to achieve. A participant in a group interview noted, "IPTs are too large and contain too many people who are unempowered to make constructive decisions, despite the 'rule' that they are supposed to be empowered. Empowerment is only in the negative direction: people feel free to say no, but not to agree. IPTs just exchange information because decisions cannot be made." People wondered whether IPTs had succeeded in empowering stakeholders. One interviewee stated that while IPTs initially helped to empower team members, over time this sense of empowerment has eroded, and "thus the purpose of IPTs has been defeated."

Moreover, while IPTs have not fully succeeded in raising the level of empowerment among lower-level decisionmakers, the upper rungs of the decision-making ladder were also seen to be frequently out of reach—thus preventing real change. For example, one interviewee complained that "It's very difficult to go up the chain to overcome the resistance to doing something. In most cases, you would have to go all the way up to the Army Acquisition Executive (AAE) before you could find a common boss to resolve problems—so we don't do it." Another characterized the decisionmaking process at the Department of the Army (DA) as "broken." This individual noted that the process "takes too long, everybody wants perfect information, and all are afraid to make a decision." DA was also faulted for not being "fundamentally interested in fielding things." Top-down decisionmaking was also seen as potentially problematic. An individual working in the logistics division of a PM shop wrote that "Command implementation of AR creates a top-down direction without full realization of the repercussions at the implementation level. Need a buy-in by all who might be affected." Beyond these personnel issues is the need for changes in

policy, regulations, and laws that support the implementation of acquisition reform. For example, legacy acquisition policies such as engineering, logistics, and the testing aspects of contracting need to change to support new performance specifications.

The DoD's infrastructure and support system tools (database systems) were also mentioned as inhibitors to reform. One participant described problems with database systems "developed in the 1960s" and unable to accommodate the implementation of any type of reform. Another pointed out that the DoD's legacy support systems, including its financial, legal, and contracting structure, would not allow the implementation of reforms "without changing the regulations and laws."

Civilian Personnel Are Not Used as Effectively They Should Be

Another impediment to reform concerns the role of civilian acquisition personnel. Several interviewees mentioned that such personnel are not being managed or used effectively. On the management side, a major problem cited by a deputy PEO (civilian) is that many civilian personnel reach the top of their career ladders too soon, thus making it harder to get and keep good, experienced civilians in the system.

On the "use" side, another deputy PEO (civilian) complained of not being used effectively: "After 31 years of experience, I'm not being used in a way that allows me to help programs or keep them from making mistakes. I'm only an 'advisor.' I do try to influence and persuade when I have the opportunity or am asked, but I'm not in the real decision loop, and that is very frustrating. One way to allow experienced people like me to help improve Army acquisition would be to allow experienced civilians to participate in the rating chain for military personnel in the acquisition system." This interviewee explained that part of the problem lies in the fact that the acquisition system is still not set up to take maximum advantage of its civilian employees, even though acquisition has become more civilianized: "As we began to reduce the number of military after the end of the Cold War, acquisition became more civilianized, but we continued to train, evaluate, and compete civilians in the same way we had done for the military. But civilians are different from military and should be used and managed in ways that take better advantage of their experience."

The New Acquisition Environment Could Create Ongoing Problems

For many of the interviewees, some of the acquisition reforms implemented over the past decade may be creating an environment that will present ongoing problems. A deputy PM (civilian) said that the switch from mil specs to a performance-based approach (in which mil specs are not required as long as performance levels or specifications are met) has meant that the process has gone from "too tight to too fluffy." The use of "performance specs" in lieu of mil specs was already seen to be leading to problems with contractors, who are given a larger role in the process. On the one hand, contractors "now have far more freedom to get into trouble," as one individual put it in a group interview. On the other hand, some contractors do not know how

to proceed with this new freedom, and could have trouble “implementing the discipline to handle their new responsibilities.” Many contractors don’t like the performance-based approach because of the uncertainty it entails. However, others are profiting from the new “vagueness” built into contracts. One deputy PEO (civilian) described a recent experience with a contractor: “The contract wanted to have everything quick, so it was vague, and now [we’re] spending dearly for that vagueness. The contractor is . . . using the vagueness to do changes—so the vagueness is working to the contractor’s benefit, not the government’s.”

One deputy PM (civilian) noted that the performance-based approach is not even increasing PM flexibility. Some interviewees mentioned that, without mil specs, many Technical Data Packages (TDPs) are not being updated and are now several years out of date. Newer personnel with less experience in the system are especially losing out. A deputy PEO (civilian) stated, “The emphasis on streamlining and encouraging innovation has created an environment in which young people now coming into the system, because they didn’t experience the situations that led to the rules, regulations, and laws, don’t have a basis for understanding the right way to do things and where to bend the rules.” A deputy PM pointed out that many individuals do better work when they are given clearly stated rules and regulations: “The human factor: some in the acquisition community will always be ‘B’ and ‘C’ players, and those folks need to be given tools (rules and regulations) so they can do things by rote.”

The recent emphasis on streamlining and scheduling has also been seen as problematic in that there are not enough opportunities for tradeoffs among cost, schedule, and performance. One deputy PEO (civilian) noted that “Now we have ‘CAIV’ and a fixed schedule and are sacrificing performance. We’re ‘empowering’ people but not letting them come back and trade among cost, schedule, and performance. Schedule is now king—evolutionary acquisition will sacrifice performance and cost.” Another deputy PEO (civilian) in describing his recent troubles with a contractor, asked “Is schedule so important that it should trump everything else [cost and performance]?”

Some interviewees also questioned whether the reforms were really saving time or only shortening some processes while lengthening others. A PM staffer (civilian) noted, “Lots of regs are gone, but it’s not clear things are taking less time as a result because other, different things are taking time to decide because we don’t have the regs and specs to fall back on automatically. We’ve gone from “too much” to “too little.” One PM lamented that his own work was delayed because of his predecessor’s strict adherence to schedule at all costs: “Because my predecessor had to get something out in 13 months, we’re now having to go back and ‘definitize’ the contract, so we’re paying a price—although this may have been as much a people issue—building a contract by committee—as a time issue.”

The Interface Between PMs and Contractors Remains Problematic

While many reforms to the acquisition system were undertaken to improve the relationship between PMs and contractors, the interface between PMs and contracting remains a problem. Some of the tension arises from the greater amount of control given to contractors under performance specs. In the words of a PM (military), "We try to take IPTs too far; there are differences between the government and contractors that have to be recognized. At some point the government has to be in control. Government's role is to manage, not do, the contract." Suspicions also remain about the motives of contractors. One PM (military) complained that, "I'm not sure Alpha Contracting is all that great. The contractors are not laying all their cards on the table." Others pointed out that the loss of mil specs was good for some systems—such as missile systems, which are stored "as is" until use, "at which point they either work to the performance spec or not." However, those systems that require maintenance and upgrades over their lifetimes—such as fire control systems—benefit more from mil specs.

Some reforms were considered by some to have made the acquisition process less rather than more efficient. Alpha Contracting was mentioned as being a problem in this regard. According to a PM staffer (civilian), "It's taking resources that weren't required before. Lots of things that used to be more automatic now must be discussed, and that can take additional time and resources." Another interviewee noted, "Things are taking longer now because extra effort must be expended to maintain a good process." There was also concern about a perceived imbalance in the decision-making process when looking across the entire acquisition chain. While requirements are developed by very senior people and IPTs, the responsibility for assembling the contract is often being handed off "to a junior officer who now has to get something out fast," one PM (military) noted. Added another interviewee, "We have junior people in contracting making decisions worth millions—whereas on the requirements side it required an executive decision."¹³

The AR Movement Has Set the Stage for Support Problems Later

The AR movement was seen to be particularly troublesome in terms of logistics support. This is due in large part to the elimination of mil specs, which, while saving upfront costs, can increase future maintenance and support costs. In particular, the lack of Technical Data Packages (TDPs) was seen to be resulting in difficulties with long-term system support, as there are no standardized manufacturing specs available to use in obtaining bids from potential suppliers of spare parts. Operations and sup-

¹³ This comment relates to the observation above that best-value contracting has, in some cases, led to vagueness in contracts that has come back to haunt the programs involved. It is reasonable to think that the less experienced a contracting officer is, the more likely that best-value contracting could lead to dangerous vagueness in the contract, particularly if the contracting officer is also under pressure to get the contract out quickly.

port costs are increasing due to a “sole-source environment” in which the original contractor is the only one available to provide spare parts. There were fears among the PM community, moreover, that support problems would increase over time as contractor providers of spare parts decide that this business is not sufficiently profitable and get out. As a participant in a group interview noted, “Contractors are making a mint. And support for new systems, when they become legacy systems, is going to suffer, because the contractors won’t be there and the organic capability will have withered away.” Particular concern was expressed about the potential loss of “surge capability” in times of need.¹⁴ “Life-Cycle Contractor Support (LCCS) does not address capital investment in organic facilities and no data are procured to support their development. That leaves the government at the whim of the prime vendor for support and curtails surge capability in times of need.”

Performance Based Logistics and PM as “Total Life-Cycle System Manager” Are Not Working

Many in the program management community pointed to problems with Performance Based Logistics (PBL)—an OSD initiative that falls under the broad-based “Logistics Transformation” AR initiative.¹⁵ As described in 5000 Series acquisition policy, PBL makes PMs responsible and accountable for “Total Life-Cycle System Management” (TLCSM).

Problems with Performance Based Logistics included a perceived lack of “buy-in” from all stakeholders. As one group-interview participant noted in written comments, “Unless senior OSD and Army leadership force legacy as well as new-start systems to incorporate, [PBL] will achieve the same results as the RTOC programs.”¹⁶

¹⁴ “Surge capability” refers to the characteristic of DoD’s organic depot maintenance facilities that they can be activated simply by management direction (no contract is required), in the event that extraordinary or unforecasted demands present themselves at the outset of, or during, a conflict.

¹⁵ The objective of Logistics Transformation is to replace DoD’s “just-in-case” logistics system, which has traditionally relied on large quantities of stock at multiple echelons of supply to cover what are often slow or unreliable replenishment processes, with a system that is more “just-in-time” (JIT) in nature, i.e., relies more on better information flow and exchange with central supply, faster and more reliable distribution, and more responsive repair. The goal of logistics transformation is to produce a system that performs at least as well or better than the current system but is less expensive to operate. (Many private-sector firms—both in manufacturing and in retail sales—have succeeded with JIT approaches, so logistics transformation in the DoD has been partly motivated by a desire to emulate what has been happening in private-sector logistics.) Performance Based Logistics (PBL) is part of logistics transformation because it calls for logistics managers to focus more on how well customers are being served by the entire system (i.e., the performance of the entire system, as measured, for example, by total customer wait time after ordering a needed part) and less on how well the distinct functional areas within logistics (i.e., supply, maintenance, distribution, and transportation) are operating independently of one another. Combined with the emphasis on performance, the second key aspect of PBL is that PMs have been formally assigned the responsibility of making PBL work.

¹⁶ The Reduction in Total Ownership Cost (RTOC) program is an OSD initiative launched in response to Section 816 of the FY99 National Defense Authorization Act, which directed the Secretary of Defense to designate ten “Pilot Programs for Testing Program Manager Performance of Product Support Oversight Responsibilities for

PBL offers significant opportunities to streamline logistics and meet objective requirements, but we have seen no support outside of the OSD policymakers." The RTOC program itself was referred to as a "joke" by one participant, who said that the Army refused to recognize the opportunities it offered for real reform: "The Army did not pay anything but lip service to the two RTOC pilots that would have achieved significant reform, Apache and Crusader. The remaining RTOC programs are not as encompassing, or rehash methods which offer either minimal or delayed return on investment."

The Total Life-Cycle System Management (TLCSM) concept also was the object of a great deal of skepticism. The program executive officer (PEO) we interviewed stated flatly that the TLCSM program has not been "defined or explained anywhere near well enough to be taken seriously." For many in the PM community, the TLCSM concept simply does not seem plausible. A written comment received following our group interview sums up the perception of TLCSM this way: "The PM as Total Life-Cycle System Manager will not happen until the mission is no longer fragmented between disparate commands, and funding is consolidated with the PM or accountable manager." The success of the TLCSM program was said to depend on leadership, priorities, and funding—all of which were seen to be currently lacking.

What Would You Change About Acquisition Reform?

Participants were also asked to explain what they would change about acquisition reform. Responses touched upon many areas.

Life-Cycle of Acquisition Programs." The RTOC pilot programs, now expanded from the original ten programs to ten programs in each service (thirty programs in all), receive modest funding provided by OSD that allows program managers to pursue certain investments or other management actions aimed at reducing life-cycle costs. Investments aimed at improving system reliability and maintainability are encouraged, as are efforts to reduce supply-chain response times and to seek "competitive sourcing" of product support. As noted by the ASA(ALT) at the RTOC Pilot Programs Tenth Quarterly Forum held at the Institute for Defense Analyses in May 2002, the ten Army programs participating in the RTOC effort at that time were: the Abrams tank program; the Multiple Launch Rocket System (MLRS) program; the Apache, Comanche, and Chinook helicopter programs; the Improved Targeting and Acquisition System (ITAS)-TOW anti-tank-weapon program; the Army Field Artillery Tactical Data System (AFATDS) program; the Crusader self-propelled artillery system program; the Heavy Expanded Mobility Tactical Truck (HEMTT) program; and the Guardrail/Common Sensor program (an airborne, signals-intelligence and target-location system). (At the RTOC forum, the ASA(ALT) noted that the Apache, Chinook, HEMTT, Abrams, and MLRS programs were also among the 17 systems the Army has included in its internally funded Recapitalization program, which, like the RTOC program, has the reduction in annual O&S costs as one of its central goals.) Funding provided by OSD for the RTOC programs is obtained by means of a Program Budget Decision (PBD) negotiated with the OSD Comptroller each year in the annual budgeting cycle. As of May 2002, the projected RTOC funding over FY02–08 earmarked for the ten Army programs participating in the RTOC effort was \$32 million.

Expand Understanding and Buy-In Beyond the PM Community

According to the people we interviewed in the PM community, the most important change required is expanded understanding and buy-in of AR beyond the immediate PM community itself. Simply put, PMs need the support of other stakeholders. Among those who need to be more involved are "middle-management support guys," "requirements people," "auditors and testers," and "loggies." The requirements community, for example, was seen as "trying to put too many requirements in" and not offering enough "trade space" to PMs. In the area of testing, concerns were expressed about the issue of equipment "reliability" in the sense of meeting performance specs during tests, and how this might affect the acquisition of the Future Combat Systems (FCS). One PM (military) stated, "Reliability is going to kill the FCS. We need to learn to 'test to fix' rather than 'test to report.'"¹⁷ Concerning logistics, a written comment we received stated that "PMs do as good a job of reform as possible, but reforms need to be applied to the Army Materiel Command (AMC) sustainment and spares acquisition processes also."

While the PM community expressed the need to expand understanding of AR more broadly, many interviewees also stressed the need for greater involvement from personnel who possess the appropriate expertise. For example, the requirements process needs "trained professionals—[we're] currently just taking warfighters off the street." Another noted that "those performing oversight should have to have experience in a project shop." And in general, many participants felt that "PMs need to be able to control who comes to IPTs and have only empowered people come to IPTs."

Make Fundamental Changes in Emphasis and Approach

Several interviewees cited the need for fundamental changes in the emphasis and approach of acquisition reform. One noted that the acquisition community needs to "reestablish the balance between cost, schedule, and performance, so as not to send the wrong signal to the acquisition corps." Another suggested it would be helpful if thresholds for dealing with different levels of risk could be incorporated into the Nunn-McCurdy rules.¹⁸ In the words of one PM (military), "If we could get changes

¹⁷ A central objective of the Operational Test and Evaluation (OT&E) community, including the Army Test and Evaluation Command (ATEC), is to ensure that systems will work and perform as specified when they are fielded to users. The ATEC website, for example, describes ATEC's core mission as follows: "The ultimate customer is the soldier—my son or daughter, your son or daughter—who will judge our efforts with their lives and mission accomplishment. This is a sacred trust which will not be compromised." Given that mission, it is perhaps not surprising that the PM community would like to see more willingness to take a constructive approach in OT&E ("test to fix") rather than one that restricts itself solely to measuring performance against specs ("test to report").

¹⁸ As part of the Defense Authorization Act for FY82, Senator Sam Nunn (D-GA) and Representative David McCurdy (D-OK) included language intended to limit cost growth in major weapon programs. Known as the Nunn-McCurdy amendment, the language called for the termination of weapon programs whose total costs (as reported in Selected Acquisition Reports) grew by more than 25 percent above original estimates, unless they were certified as critical systems by the Secretary of Defense or if the cost growth was attributable to certain speci-

in the perception of risk, we could handle these crises better.” More broadly, Congress needs to make laws that support rather than work against acquisition reform. Participants in a group interview pointed out that many laws and regulations “are still fundamentally at odds with AR,” one example being restrictions and boundaries defining where and how appropriated dollars may and may not be spent (which, like the Nunn-McCurdy legislation, can sometimes place limits on PM flexibility to deal with risk).

Change the Financial System

The PM community emphasized that for AR to succeed, significant changes will be required in the financial system for acquisitions.

PMs need adequate funds to cover the full costs of acquisitions. Currently, PMs do not typically receive the funds necessary to support life-cycle management. In the words of one PM, “The price for parts [is] supposed to cover the cost of obsolescence, so if my system is accounting for X percent of sales, it ought to get X percent of the investment dollars being collected—but it doesn’t.” A deputy PM (civilian) stated simply, “AR requires resources if PMs are going to do new things.” Another said, “Back up initiatives with sufficient funding to carry them out.”

While PMs cannot effectively support AR without sufficient funds, they also need flexibility in determining how to spend those funds over which they have responsibility. Many PMs felt constrained due to “color-of-money” restrictions on how they could spend the moneys within their budgets. A PM (military) said, “My system has products in all phases of the life cycle: part of the fleet is being produced; while another part is in a Software Enhancement Program, but color-of-money restrictions prevent me from spending where it makes the most sense.” A deputy PM (civilian) made a similar point: “PMs definitely need authority to use production funds for product improvements. We need flexibility to adjust blocks in the middle. Blocked acquisition must be flexible enough to allow changes during development and production.”

On a broader scale, the PM community would like to see changes in the budgeting and appropriations process. Without changes to the Planning, Programming, and Budgeting System (PPBS),¹⁹ the AR process was not seen as being complete.

fied changes in the program. Language in the 1983 authorizations act made the original Nunn-McCurdy provisions permanent. Instead of referring specifically to the 1981 SAR, the 1983 legislation created a “Baseline” SAR for each new weapon system. The Nunn-McCurdy legislation also requires reporting of cost breaches. As required by 10 USC §2433, a Nunn-McCurdy unit cost breach occurs when a Major Defense Acquisition Program (MDAP) experiences an increase of at least 15 percent in Program Acquisition Unit Cost (PAUC) or Average Procurement Unit Cost (APUC) above the unit costs in the Acquisition Program Baseline.

¹⁹ The PPBS, originally developed in 1961, is a set of defined procedures that DoD and its components use to do strategic planning and resource allocation for all national defense programs. A key output of the PPBS process is the determination and allocation of the funding (i.e., obligation authority) that DoD requests each year as part of the President’s annual budget submission to the Congress.

One interviewee stressed the need to give PMs the ability to reprogram resources as needed to accommodate the implementation of AR. Some mentioned that PMs themselves also need to learn how to better take advantage of any leverage they might have. One PM said, "PMs need to learn how to 'play' in the sustaining spares arena—i.e., go the meetings and use their leverage as customers to influence allocation of Major Subordinate Command O&M [Operations and Maintenance] dollars."

Don't Try to Do Things That Cannot Be Done Well

Some members of the PM community said that some AR initiatives are putting the Army or the government into situations for which it does not have adequate expertise. For example, a written comment submitted at the group interview questioned the advisability of trying to establish a systems engineering capability within the Army to advise PMs: "Would the Army benefit from forming an internal systems engineering capability? No. Research, Development, and Engineering Centers (RDECs) have become a 'body shop' with no commitment to core competencies and mission. This idea would only result in more funding for internal job programs with little responsibility for system support." Echoing this view, a second comment was: "In complex systems involving high numbers of lines of code and multiple subsystems, it is important the prime remain the integrator. The government has neither the capability nor the motivation to accomplish this [systems engineering and integration] effectively."²⁰

Make Better Use of Civilian Expertise

Several of the senior civilians we talked to said that the experience and savvy developed by longtime civilian workers in acquisition should be put to better use to help the acquisition process. One deputy PEO argued, for example, that "Deputy PEOs should be put in the rating chain for military PMs," and that "senior civilians should be given greater opportunity to influence program decisions, particularly since so much has been done to streamline the acquisition business that young people no longer have a good sense of where—and where not—to bend the rules." Another deputy PEO wanted to see a wider range of career-path opportunities and incentives for civilian acquisition professionals: "We need to improve our system for documenting the accomplishments of civilian personnel," and "our system is 'capping out' senior people at age 45, making it harder to get and keep good PMs."

²⁰ Note that this comment suggests only that the Army should not try to do its own systems engineering and integration for the systems it buys. It does not say that the Army should not try to make itself into a smart *consumer* of systems engineering and integration services. Indeed, if the Army purchases systems engineering and integration services (as is happening in the FCS program with the Army paying Boeing and SAIC to be the FCS Lead Systems Integrator), the Army clearly needs to be able to independently comprehend and evaluate the quality and worth of those services as they are provided.

Track, Evaluate, and Test Initiatives After They Are Launched

Finally, members of the PM community felt that improvements are needed in the process to track, evaluate, and test initiatives after they are launched. Participants in a group interview emphasized the importance of prototyping, which would give the Army the opportunity to understand the potential effects of an initiative before it is implemented Army-wide. One participant in a group interview wrote, "The effectiveness of various reform measures should be tracked and evaluated, and pilot programs established where risks are high, and no tracking system is now utilized that I am aware of." A PEO (military) noted that the Army needs to define questions that can be used to track the effectiveness of an AR initiative. Such questions might include how long the reform has survived and whether it has been institutionalized.

Summary

While the people we talked to in the Army program management community were supportive of the goals of AR and felt that some progress had been made, the clear message that emerges from our interviews is that many in the Army program management community think much more needs to be done before the acquisition process can be characterized as having been truly reformed—or even changed that much for the better. Indeed, many of the more senior people we talked to expressed concerns that some of the most reasonable-sounding AR reforms—the elimination of mil specs, the relaxation of other kinds of data requirements from contractors, the push to outsource as much system support—all could backfire when DoD finds itself having to support the involved systems over the very long life spans that defense systems tend to have once they finally get fielded. Many of those same senior people expressed concerns that unless ways are found to preserve and pass on some of the hard lessons they have learned—about the need to find the right balance between cost, schedule, and performance, the dangers of "performance-based" contracting when it is rushed, and the value that rules and regulations can sometimes have for the "B and C" personnel who will always be present in the workforce—some of what has been done under AR in the 1990s may lead to a return of old problems from earlier eras once again coming to the fore.

There is no question that under AR, and now even more under AE, PMs are being exhorted to "be more innovative" and "take more risks." But the program management personnel we talked to all pointed out that nothing has changed in how resources are allocated and controlled, either within the Army or within DoD, in a way that gives them any more reason to do those things than they had before AR. In the same vein, they argue that it makes no sense for them to be made "responsible and accountable" for "total life-cycle system management" unless a way is found to give them the commensurate leverage and authority they need to fulfill that charge.

To be sure, some PMs have found ways to get some of that leverage and exert some of that authority—in some cases because they were a powerful and large “customer,” and in others because they could control things through contracts—but without exception that happened only as a result of PM initiative and persistence, not because established procedures were in place to make it happen.

Finally, whatever happens next, the Army program management community would like to see the other communities with whom they must work—the RD&E, requirements, contracting, testing, finance, and logistics communities, and all the other communities that play a role in acquisition—be brought, through education and training, to the same level of understanding and appreciation for what AR (and now AE) is trying to accomplish as the PM community itself has.

In the next chapter we examine the industry perspective on AR: what's been good, what hasn't, and what still needs to be done. As we will see, much of what we have described about the perspective of the Army program management community shows up in the perspective of industry as well.

Industry's Perspective

In this chapter we present what our industry interviewees had to say about acquisition reform. Program managers in industry are as committed to developing and delivering new systems as their government counterparts, but they sit on the other side of the table. Acquisition reform clearly affects both sides, so we report here some “provider” views and perspectives on acquisition reform and its effects.

Method

As in the case of our Army PM interviews, RAND Arroyo Center obtained the responses presented here by holding individual “not-for-attribution” meetings with four of the largest U.S. defense contractors at contractor sites. Between two to six senior managers from the firms in question were present at the meetings, each of which lasted at least three hours. Although the meetings were structured around the same three questions we used in our Army interviews, ample opportunity was provided for exploration and elaboration. Contractor participants consisted of corporate senior staff and senior operating managers, including directors and vice presidents, who possessed backgrounds in contracts, program management, and functional management.

Three RAND Arroyo Center attendees were present at each meeting (in one case four). Each Arroyo attendee individually transcribed his notes following each meeting. A single Arroyo participant (present at all four meetings) then combined and summarized all the researcher notes and circulated the summaries to obtain a consensus view among the Arroyo attendees of what each of the contractors said. The same person then combined the consensus views by contractor into the single report that follows—which was once again reviewed by all Arroyo attendees to ensure that it accurately and completely captures what industry had to say. The discussion below (and in Appendix E) includes direct quotations (without attribution) from participants. These comments have been edited only when necessary for syntactical clarity.

Our discussions with industry PMs were organized around the same three basic questions we used in our discussions with Army PMs: what has been good about AR,

what has been bad, and what still needs to be done. As in the previous chapter, we have included actual interviewee statements, or paraphrases of their statements (edited for syntactical clarity). Those statements are enclosed in quotation marks without attribution to any particular individual. We are including the quotations to allow readers to hear what industry personnel had to say, in their own words, about acquisition reform. A complete list of the quotations from our industry interviews is given in Appendix E.

What Has Been Good About Army Acquisition Reform?

Army Execution of AR Is Improving

Industry representatives felt that the Army's execution of acquisition reform has improved. Most notably, AR has led to better and more open communication between the Army and industry, particularly at the senior level. One interviewee noted that the Army and industry were developing an "improved nonadversarial relationship . . . characterized by open communication and cooperation across stovepipes in both industry and DoD, and an emphasis on trust." Others were less enthusiastic, saying only the AR has worked in "bits and pieces."

Some Specific Army Actions Have Been Very Useful

Industry representatives named many specific reforms that they had found useful, including greater use of Other Transactions (OTs) and performance specs, the use of evolutionary acquisition, IPTs, and Alpha Contracting. Performance specs were praised for focusing on "what you want, not how to do it." Contractors felt that the Army had done a good job—in some instances—to stimulate innovation, such as by encouraging the participation of nontraditional military suppliers. They also cited as positive the Army's support for CMM and CMMI,¹ as well as its attempts to create Total System Performance Responsibility (TSPR) contracts, under which all noncore government functions become the responsibility of the contractor. Contractors also praised improvements in the use of past performance data as a criterion for contract award. One industry representative stated, "The sharing of the DoD evaluations benefits the contractors; it provides steering signals for how to improve. The contrac-

¹ CMM stands for Capability Maturity Model, a methodology to evaluate the potential of an organization to succeed as a software developer by evaluating its software development processes. CMMI—the "I" stands for Integrated—is an extension of that methodology to include capability beyond software, such as contracting. The meaning of the "I" varies with the application of the methodology. CMM and CMMI are products of the Software Engineering Institute (SEI), a federally funded research and development center sponsored by the U.S. Department of Defense and operated by Carnegie Mellon University. The U.S. Army TACOM-ARDEC Software Enterprise was an early adopter of CMMI. More information about CMM available at <http://www.sei.cmu.edu/cmm/cmm.html>.

tors are provided an opportunity to make any explanations and suggest corrections and are provided the DoD evaluations for this purpose."

What Has Been Bad About Army Acquisition Reform?

But as was seen in the PM interviews, the majority of the comments focused not on the successes but the failures of acquisition reform.

Army Actions and Statements Are Inconsistent and Weak

Many of those interviewed found the Army's actions and statements with regard to acquisition reform to be inconsistent. For example, many said that AR initiatives were sometimes enforced and sometimes not. One interviewee noted, "In the contracting area, some Army organizations favor performance-based payments, while others do not." Another said that "The use of past performance as an award criteria process remains a little subjective and sometimes the DoD doesn't select the most appropriate past programs to evaluate for this purpose." One industry representative pointed to the blatantly contradictory instructions provided in different regulatory sources. Another noted that "The Army definition of AR is vague, and different from place to place."

In addition, the Army has often made only a weak show of support for AR. One interviewee stated that "The Army is very slow in its use of acquisition reform as compared to the other services. . . . There is no central Army guiding point of reference for the implementation of AR, so nobody—contractors or PMs—has a source they can turn to to decide what can and cannot be done in any given situation." Another commented that "No one at the Army [Commodity] Commands is charged with—or pushes on—AR. . . . Army is much more controlled by its long—term bureaucracy, that will outspokenly stonewall a change until its proponent has moved on." The Army was compared unfavorably to other services on AR. Another interviewee noted that of all the services, the Army was "the least progressive in promoting and adopting the benefits of acquisition reform."

Some initiatives were said to be given only "lip service," while other programs were "poorly utilized." The entire AR reform effort was characterized as "will-o'-the-wisp" and "not fully defined." It was often felt that the Army does not have a clear understanding of how to implement AR. As one interviewee put it, "In many cases, there seems to be significant uncertainty about exactly how AR should be implemented and how it should affect the procurement process and the proposal produced by it." Another said, "Initiatives appear to be promoted primarily for public relations effects, and without serious consideration of their institutional effects."

A related problem noted by industry representatives is that even when AR initiatives are promoted to some extent, they can easily be stopped by those who do not

want to see reform. For example, PEOs and the OSD were said to sometimes intervene in order to defeat AR initiatives. One interviewee mentioned that AR had not penetrated the depth of the "procurement bureaucracy." Army AR (AAR) was said to lack importance, particularly at the lower or operational level, "where the rubber hits the road." The problem for one industry representative was that AAR initiatives are often evaluated by the very people who will be affected by the reform; these individuals are reluctant to risk losing any power—which might mean a loss of government jobs, a change in what government workers do, or a loss of bureaucratic power. The end result is frequently "a dilution of the reform." One individual described the AAR staff and Army PEOs/PMs as being "at odds" regarding AAR. The PEOs and PMs were said to focus on near-term deliveries per the contract, considering any AAR efforts to be "counterproductive." This same individual noted that PEOs and PMs "have little incentive to support AAR." One interviewee described a "general feeling of distrust" in government-contractor contractual relationships. The contracts—and not the PM—were said to be driving AAR: "And the contract community is different and often at odds with—certainly independent from—the PM/PEO community. If you want true AAR, reform the contracts folks."

There is not a sufficient number—or a sufficient number of *motivated*—PMs to implement reforms, and even those PMs committed to reform often lack the necessary staff to make it happen. One interviewee mentioned that PMs have particular problems with systems engineering: "They too often lack experience relative to their responsibilities. They have too limited a staff for their needs and even to execute the TSPR oversight function. They are weak in system engineering. Industry has to pick up the slack, especially as requirements change." The new emphasis on a capabilities-based approach and evolutionary acquisition processes were also said to place greater demands on PMs—and greater uncertainties on industry. One industry person noted that "It isn't clear that industrial processes are adequate in the face of these new trends."

Industry personnel sometimes described the need for greater freedom to do the job right. One mentioned the need for more design freedom in terms of general objectives as opposed to "detailed specs." Others complained of too much Army oversight, which should be replaced "by insight and partnership." Like their counterparts in the PM community, industry personnel felt limited by "color-of-money" issues that constrained the way that money could be spent. Another noted that the Army allowed contractors "little freedom in their choice of Earned Value Management [EVM]² tools, insisting on the standard that the Army prefers."

² Earned Value Management is a management technique that relates resource planning to schedules and to technical cost and schedule requirements. All work is planned, budgeted, and scheduled in time-phased "planned value" increments constituting a cost and schedule measurement baseline. The two major objectives of an earned value system are to encourage contractors to use effective internal cost and schedule management control systems

The Army Is Still Encouraging Contractors to Invest Their Own Money on R&D Programs, Contrary to DoD-stated Policy

Funding issues were also a source of concern among the industry community. Industry personnel felt that the Army too often underfunds its programs. This can be a particular problem during the contract development phase, thus requiring the contractor to pay for the pre-contract funding at high risk. One industry representative pointed out that because AR tends to increase the potential risk to defense contractors, it might "reduce contractor willingness to invest in long-term defense projects." This person added that "This unintended and undesired result of AR is changing the way we think about investment decisions." An underlying theme was that the Army is risk averse, unwilling to provide the additional funds necessary to make the AR initiatives succeed. In one contractor's words, "there is a risk/expectation mismatch," and in another's, "the government has expectations about how AR is supposed to produce things 'better, faster, cheaper,' but many in the government still aren't willing to tolerate the additional risk that sometimes accompanies that."³

Other financial issues were cited. The performance-based payment process⁴ requires flexibility, but, as some interviewees noted, "it is sometimes difficult to get the Army to make corresponding changes in the payment milestones." Another interviewee mentioned that while some Army centers have really taken to the performance-based payment process, others have not: "Army center 'X' is great, but Army center 'Y' is medieval." Also mentioned were inconsistencies in Army regulations regarding cost sharing for Other Transactions (OTs). One interviewee referred to problems associated with serving as a subcontractor to a prime contractor under AR: "AR is making it more difficult for a contractor to win when it's bidding to be a sub to a prime, because . . . under AR, primes are exploiting the subjectivity (e.g., in best-value contracting), allowing them to be more capricious and able to limit competition to their internal sources." (Under "pre-AR" contracting, specifications and terms and conditions were more rigorously and precisely defined, which made it more difficult for a prime to use an internal source if an external subcontractor had the best goods to meet the requirements and terms and conditions of the subcontract.)

and to permit the customer to be able to rely on timely data produced by those systems for determining product-oriented contract status.

³ In other words, a contractor will price a contract and the government will insist it be done for less by adopting certain principles of AR that the contractor does not believe have merit. The government will not back up its stance by giving the contractor the opportunity to be reimbursed if some of those AR techniques do not—in the end—save money as the government expects.

⁴ Performance-based payment is a contracting technique whereby a contractor receives progress payments after accomplishing defined contract tasks.

The Army Is Imbedded in a System that Impedes AR

The Army (like the other services) is embedded in a larger system, which includes the other services, DoD, and Congress. As a whole, that system's actions are seen by many to be impeding AR. This problem can manifest itself as uncertainty or a lack of uniformity in the acquisition process. It can also mean that AR is impeded by congressional or OSD leadership. For example, one interviewee found that OSD "does not have AR as a strong priority." That problem is compounded because of regular personnel changes: "Over time, the OSD players change and have had different viewpoints; new players are not obliged to follow prior policies."⁵ Another noted that SPI has had failures "due to resistance from DoD lawyers and the Congress that wanted consideration in the present from contractors for changes that would permit lower future cost of business." In addition, many reforms have not been implemented due to intransigence within the DoD bureaucracy. AR was said to demand "new relations between contractors and the DoD that remain difficult to implement within the rank and file of the bureaucracy. These include new levels of coordination and cooperation." Financial problems can arise due to an aversion for change among those who do budget planning. One interviewee noted that "PA&E and the keepers of the FYDP and PPBS are indifferent to AR outside of their stovepipes, and to the needs of the Army PMs.⁶ They have their own interests that are often [in opposition] to AR, and act in ways that destabilize programs by inhibiting efficient dollar flow. They are reluctant to accept changes from outside of the financial stovepipe that interfere with their accustomed way of doing business." Test agencies were also cited for getting in the way of reforms by providing "inconsistent advice without regard to the specifications provided in the contract." Other impediments to reform include legal rulings that prevent catalogue sale of military items where such would lower cost of sales, a lack of common packaging among the services, and a lack of common commercial configuration management standards and tools.

General personnel problems were also mentioned. Many contractors felt that the DoD personnel system did not reward people for being innovative. In one interviewee's perspective, "there are no 'upside' benefits if someone tries to be innovative—only 'downside.'" Another industry representative said that, so far, DoD

⁵ The cancellation by OSD of the 2001 version the 5000 Series acquisition policy documents in the fall of 2002, and their replacement with a new set of more compressed statements of acquisition policy, is a classic example of this phenomenon. While much from AR survived into the new 5000 Series, some important initiatives, such as the call for wider use of TSPR contracts, did not, because the new OSD leadership simply did not agree with the prior leadership that TSPR contracts were a good idea.

⁶ PA&E stands for the OSD office for Program Analysis and Evaluation, which advises the Secretary and his senior staff on service programs. The "FYDP" is the Future Years Defense Plan: a "rolling" database (i.e., it is updated every year in the annual programming process) extending from five to six years into the future. The FYDP is the final, official resource-allocation and control document for DoD's Planning, Programming, and Budgeting System (PPBS). As such, the FYDP contains and organizes all of the Program Elements (PEs) that cover all of the multitude of activities, programs, and operations that take place in DoD.

"has not changed the ways it evaluates, rewards, and promotes its personnel in ways that would support the acquisition challenges associated with something like the FCS." One person summed the problem up this way: "Insufficient cultural, organizational, and intellectual changes [have taken place] in the DoD as implicitly required by AR."

Some AR Efforts Have Been Rushed

Finally, some industry personnel faulted the Army for rushing certain AR efforts, thus leaving industry ill-prepared to implement required changes. One person noted that most companies have kept mil specs because they lacked anything to replace them. Another said that people often don't know how to react to the changes: "Some AR initiatives have left a vacuum, where people don't yet know how to proceed, which can cause problems and add time."

What Would You Change About Acquisition Reform Overall and in the Army?

Industry representatives offered several suggestions for improvements, ranging from clarifications of Army policy to improved education in acquisition reform.

Clarify Policy

One of the most often-heard suggestions for improvement focused on the need for DoD and the Army to clarify its policy on acquisition reform in a way that both government and contractors could understand. One individual called for an "agreement between government and industry on how acquisition reforms are to be implemented in contractor language." Several people called for both policy and guidance to be issued simultaneously, although separately. In particular, contractors stressed the need for the Army to increase "the uniformity of practices and procedures."

Enforce Policy

It was widely felt among the industry community that AR cannot occur successfully without increased effort to enforce the new policy. Successful enforcement was believed to require a variety of efforts. These include greater empowerment and training of PMs, adequate upfront funding, improved communications, greater managerial resources, and the encouragement of prime vendor support, where possible. Industry representatives stressed the need for multi-year contracts and greater funding stability. Other comments focused on the need to use TSPR judiciously. One industry representative said that TSPR should be used only "on programs where the prime can control the key factors—and not elsewhere." Another noted that TSPR can "deprive subs of their intellectual property." One interviewee stressed the need to en-

force competition at the subcontractor level in order to prevent vertically integrated primes "from inserting their own technology where inferior."

Several comments focused on the need for the Army to improve contractor incentives. Improved compensation was seen as particularly important due to the increased risk placed on contractors through AR. In the words of one industry representative, "Government thought that they would place all responsibility with industry, but that didn't work because industry was not compensated for the risk it was asked to undertake." Another stressed the need to ensure that industry can realize sufficient profit in R&D—whether or not a product actually goes into production. One interviewee noted, "There is a need to make development more profitable because production quantities keep changing and provide no safe haven for contractors to realize profits lost in development." Contractors also felt that the Army had sometimes gone too far in insisting on "unlimited rights" to technology funded by contractor R&D. Another pointed out that while some AR initiatives have helped, they have not been sufficient: "Provide incentives for companies to invest in new technologies. Cost-plus contracting⁷ helps, but if the technologies strongly relate to specific programs, and their future is uncertain, or destined for low profit margin, more must be done." Industry representatives also emphasized that incentives (i.e., contract terms) need to be kept simple.⁸ Moreover, a whole range of incentives might be employed, including "ego, recognition, job enrichment, etc."

Make Cultural Changes

Many in the contractor community spoke of the need for the Army to make broad cultural changes in order to make AR effective. This might include becoming more proactive and placing a "consistent high priority" on AR, which would be demonstrated "by having high-ranking AAR executives visible and active at key meetings." Some suggested that the Army create an "Army Acquisition Center of Excellence" to provide institutional support for AR.⁹

Interviewees spoke of the need to get people involved in AR at all levels, including middle management, upper management and other positions of power, PEOs, and contract personnel. In short, the Army was said to need to "remove personnel that refuse to support new initiatives." Some spoke of the need to improve the partnership between DoD and industry contractors. As one person put it, "There

⁷ Cost-plus contracting is a cost-reimbursable contract wherein a contractor recovers his cost plus a fee for services.

⁸ Contract terms can be very simple or very complicated—both legally and technically—and when they are complicated, interpretation can be contentious, a state to be avoided.

⁹ A "center of excellence" in this context would be an organized body of people chartered to study AR methods and approaches: to find out what works and what doesn't, to perfect the workable, and to advocate and support the use of innovative acquisition approaches on a continuing basis. A description of the Air Force's Acquisition Center of Excellence can be found at <http://www.safaq.hq.af.mil/ACE>.

must be a change in the DoD's attitude of oversight to one of insight into the contractor's motivations. There must also be new levels of coordination and cooperation—a real partnership. Such new attitudes are often undermined within the DoD by the 'old guard' that believes that fixed-priced contracts, where the entire firm is often placed at risk, are the only way to coerce contractors into meeting their contractual obligations." Others mentioned the role of Congress's opposition to multi-year funding; one noted, "It would help to find a way of damping this."

Strengthen Weak Areas/Use of AAR Policy

The industry community also pointed to many specific areas of AR policy in need of improvement. These include providing more funding flexibility, where legally possible, to allow money to be shifted from one line item to another in order to lower total program costs. Value Stream Analysis and "Lean Production"¹⁰ were cited as two initiatives with potential for much wider application: "Value Stream Analysis and Lean Production are significant eliminators of waste. Get more Army PMs to accept this. Some do already." Other opportunities include providing more lucrative cost-saving rewards to contracts and minimizing the use of cost plus award fee (CPAF) contracts, which can result in profit minimization. The Army could also do more risk analysis in advance in order to stabilize requirements. Participants also spoke of the need to improve best-value contracting, which, because of its subjectivity, "permits contractors to be exploited."

Educate

Finally, the industry community was well aware that the kinds of improvements they were proposing could not occur without increased education in AR. As one interviewee said, "DAU should teach new ways of doing things before they are implemented." Contractors noted in particular a need for improved system engineering capability both in the Army and among contractors. Systematic expertise is also needed in contracting and PMOs (Program Management Offices) in order to support performance-based contracting. Management skills could also be addressed through training. Contractors spoke of the need to provide "greater empowerment" to PMs as well as "greater managerial and training resources devoted to the enforcement of the initiatives within the DoD." Training could also provide a means of creating cultural change among reluctant middle managers, who often have an "adversarial stance" toward contractors. More experienced DoD personnel, accustomed over many years to doing things in a particular way, could benefit from training on

¹⁰ Value Stream Analysis is an economic technique that evaluates the costs of the processes inherent in the development of a product to eliminate those that cost more than they contribute. Lean Production is a manufacturing philosophy adapted from the Japanese success in manufacturing high-quality/low-cost automobiles. Womack et al. (1991).

new acquisition initiatives. One industry representative suggested that such training should be “mandatory.” Finally, they noted that at least some of the educational resources needed are already available through industry training programs, more of which could be opened up to DoD personnel.

Summary

Our interviews with industry suggest that from industry’s perspective, AR has generally helped improve industry’s ability to communicate with the government, particularly at the senior level, and that certain specific AR initiatives have been beneficial. On balance, though, industry, like the Army PM community, believes that more effort is still needed before the goals of AR will be fully realized. Indeed, industry personnel independently raised many of the same concerns we heard from Army PMs.

Just like Army PMs, for example, many industry personnel said they see a need for broader and more uniform awareness, understanding, and acceptance of AR across multiple communities (e.g., the contracting community, some communities at some Major Subordinate Commands, and some deputy PEO and PEO-level personnel¹¹ in the Army) before real progress can be made. They also raised concerns similar to those raised by Army PMs that some AR initiatives from the 1990s (e.g. the prohibition against using mil specs) have sometimes left a kind of vacuum that makes it more (rather than less) difficult for the government and industry to work well together—particularly when less-experienced people are involved. Like several of their Army PM counterparts, industry managers noted that the new flexibility afforded under AR (the use of best-value contracting and performance-based specifications, for example) can benefit both the government and industry when seasoned people are involved, but it can cause problems when they are not. On both the industry and especially the government side, there simply aren’t enough seasoned people to go everywhere and do everything, so the opportunity for mistakes and miscommunication has increased under AR in many settings, because things are more vague and less well-defined than they used to be.

Industry also expressed the same concern about increased risk—and the failure of AR to provide concrete mechanisms for dealing with it—that the Army PM community expressed. Of course, the concerns reflect the different positions the two sides have—Army PMs would like to have more resources to allow them to hedge against the increased risks they are being asked to take, while industry personnel feel that they are being asked to assume those additional risks because the government is not stepping up to them—but those are two sides of the same coin.

¹¹ Every program executive officer (usually a general officer) will have a deputy program executive officer (Deputy PEO), usually a Senior Executive Service (SES) civilian.

Industry also shares the same basic concern that some AR initiatives may backfire in the long run. The specific initiatives are often different—Army PMs are concerned about the Army's ability to support systems over the long haul given the elimination of various data requirements, for example, while industry is worried that competitive subcontracting will become more difficult as the use of prime contractors and "system integrators" expands, but the basic concern is the same: What exactly will the long-term effects of AR be?

Finally, a general industry perception that emerged from our interviews is that industry sees AR as an expression of willingness on the government's part to trade performance for improvements in cost and schedule.¹² That simply changes the nature of the balance and tradeoffs that industry must take into account as it tries to do business with the government; however, it doesn't necessarily make it easier to do a good job. Thus, just as for Army PMs, under AR the acquisition process for industry has clearly been made *different*. In the aftermath of AR, both industry and government are having to learn new ways to interact. The hope on both sides is that as they do that, they both will eventually benefit: i.e., the government will get new and better systems sooner for reasonable costs, while industry will be able to earn healthier returns for its workers and shareholders. If that happens, AR will have been a major improvement.

¹² That perception is driven by the AR emphasis on "streamlining" and "evolutionary acquisition," for example, and more recently by DoD's call for "capabilities-based" acquisition. Some of the industry representatives we talked to interpreted the latter as simply a call from DoD to "build us things you already know you can build, so that we can get at least some new capabilities fielded—rather than waiting for all our technical requirements to be satisfied."

Three “Actionable Items” for ASA(ALT) Consideration

This chapter describes three actions the ASA(ALT) could take that, based on the findings of the study, would make it easier for Army PMs to do their jobs. The actions are grounded in three study findings that, by their nature, lend themselves to a practical response by the ASA(ALT). The three findings are:

1. In order to help Army PMs deliver on the promises of AR, personnel who support (but are not directly part of) Army PM organizations need to be better informed about what AR is, how it works, and how they can contribute.
2. Because DoD-level acquisition policy has made PMs ultimately responsible for making AR work, PMs in the Army would benefit from having Army acquisition policy (AR 70-1) describe how they will be supported by the ASA(ALT) chain if they do what DoD acquisition policy is telling them to do.
3. Under AR and AE, Army PMs, like all PMs, are being told to take risks, so they need to be given greater access to resources that would allow them to hedge against those risks when they take them.

Actionable Items

We now describe three actionable items for ASA(ALT) consideration that address each of these findings in turn.

Action 1: Expand Access to Education About AR

As indicated, this first action has to do with the consistent finding of the study—reflected not only in our internal analysis of the 63 AR initiatives but also in the statements made by all three of the groups we interviewed—that it would be beneficial if acquisition-related personnel *outside* PM organizations could get (or be given access to) more education and exposure to the new options and approaches that are now available as a result of the AR and AE efforts of the last decade. Toward that end, the ASA(ALT) should direct the Army Acquisition Support Center (ASC) to add to its website certain additional information (described below) that would en-

able acquisition-related personnel to find out where and how they can, indeed, learn more about what's possible, what they need to know, and what's expected of them.

As described on its website, the Army ASC¹ "is a new field-operating agency under the Assistant Secretary of the Army for Acquisition, Logistics and Technology. It was formed in October 2002 by merging the Army Acquisition Career Management Office with the Army Acquisition Executive Support Agency. The Army Acquisition Support Center (ASC) is committed to training and educating the Acquisition Logistics and Technology Workforce (AL&TWF) and the Army Acquisition Corps (AAC), a subset of the AL&TWF.

ASC is a multi-functional agency whose initiatives are to:

- Provide oversight of the AAC and the AL&TWF.
- Communicate the mission and vision of the AAC.
- Provide Major Command (MACOM)-level support to Program Executive Offices in the areas of resource management, human resources management, and force structure.
- Plan, program, and oversee/execute career management activities for the AL&TWF (e.g., policies, training, opportunities, etc.).
- Provide to the Army Acquisition Executive, Director of Acquisition Career Management, Assistant Secretary of the Army (Acquisition, Logistics and Technology) staff and the Army acquisition community policy, guidance, and support and services regarding acquisition issues and initiatives."

Under that charter, the ASC website is the natural spot where personnel in acquisition-related career fields can go to see how and where they can advance their careers through education in:

- Program Management.
- Contracting.
- Industrial/Contract Property Management.
- Purchasing.
- Manufacturing, Production, and Quality Assurance.
- Business, Cost Estimating, and Financial Management.
- Acquisition Logistics.
- Information Technology.
- Systems Planning, Research, Development, and Engineering.
- Test and Evaluation.

One way to provide useful AR information to these personnel, therefore, would be to post on the ASC website the information illustrated by example in Appendix F

¹ See <http://asc.rdaia.army.mil/public/overview/default.cfm>.

of this report, which shows how the 63 AR initiatives addressed in this study can be related to specific DAU courses. Providing that information would make it easier for acquisition personnel to self-direct themselves to specific AR options that they might otherwise have trouble identifying as being available and something to consider. More important, it would make it possible for Army PMs, if they are seeking help from someone in one of the above fields and want that person to consider a new approach, to point the person toward the specific DAU courses (and associated DAU faculty) as a resource they can consult to understand better what the PM wants to do.

Action 2: Make Army Acquisition Policy Supportive

The second action for ASA(ALT) consideration has to do, again, with making it easier for Army PMs to put AR ideas into practice, in this case by ensuring that official Army acquisition policy reinforces what DoD-level policy calls upon PMs to do. In particular, now that the final version of DoD Directive 5000.1, *The Defense Acquisition System*, has been signed and issued by the Deputy Secretary of Defense,² the Army has the opportunity to revise Army Regulation 70-1, *Army Acquisition Policy*, so that it implements not just the letter but the spirit of the new DoD policy. As indicated by its brevity (it is less than eight pages long), the new DoD 5000.1 Directive represents a deliberate and conscious attempt by OSD to "create an acquisition policy environment," quoting from the October 2002 Office of the Secretary of Defense memorandum that cancelled the previous version of 5000.1, "that fosters efficiency, flexibility, creativity, and innovation" on the part of program managers. In that spirit, the challenge for the ASA(ALT) is to prepare a new version of AR 70-1 that more strongly encourages Army PMs to embrace that spirit—and also describes new *practical* mechanisms being put in place in the ASA(ALT) chain to back them up when they do.

The "PM's Bill of Rights and Responsibilities" (Appendix E in the current AR 70-1) provides a good example of Army policy that is already well-aligned with the spirit of the new 5000.1 policy. This is so much the case that the ASA(ALT) may want to move that statement forward to become the lead item in the regulation, rather than relegating it to an appendix. (The current regulation already states that program managers "will manage assigned programs in a manner consistent with the policies and principles articulated in governing regulations and the PM's Bill of Rights and Responsibilities in Appendix E," so the idea of moving it forward is not a radical one.)

As an example of how that minor change to the regulation could be backed up with some new practical mechanisms, in the current AR 70-1, in the discussion of the authority that PEOs, PMs, and MDAs have, the following statement appears:

² DoD Directive 5000.1, *The Defense Acquisition System*, May 12, 2003.

If the PEOs/PM's analysis indicates that functional requirements, in support of meeting material requirements, do not add value to the Army, the PEOs/PMs will require that the functional proponent justify the requirement. The burden of proof for justifying the functional requirement lies with the functional proponent. In cases where the functional requirement is not a statutory requirement and it does not result in a clear benefit to the Army, the Milestone Decision Authority (MDA) may exempt the program from the functional requirement.

A practical mechanism that would help to reinforce this option for PMs would be to add a statement saying something along the lines of: "PMs are encouraged to question functional requirements throughout all acquisition phases. In those instances where a PM has been able to make a solid case for changing, relaxing, or adjusting performance requirements in order to achieve other acquisition goals (e.g., cost or schedule goals), the PMs will be supported by direct PEO and, where necessary, ASA(ALT) intervention in the event of a dispute or disagreement with functional proponents." Incorporating this kind of language into AR 70-1 would tell Army PMs that PEOs and the ASA(ALT) are not just their bosses but also their allies when disputes arise. In the end, of course, PMs must defer to what the Army as a whole decides is in its best interest; PMs can't (and don't) expect to "run the Army," but they can expect the acquisition chain to support their case when they have one.

The suggested sentence above is offered only as an example to illustrate how AR 70-1 might be revised to make it clearer to PMs that they will have a high-level ally in the ASA(ALT) who will support them when they decide to take a risk and do something that reflects "flexibility, creativity, and innovation."

Another example presents itself in the discussion in the current AR 70-1 which states that PMs, as the Material Developer (MATDEV), are to "coordinate" the Acquisition Strategy (AS) "thoroughly" with "the Combat Developer (e.g., TRADOC), the agencies that will use and support the system when it is fielded, the training developer, independent testers and evaluators, logisticians, human system integrators, and matrix support organizations." As a practical mechanism to further help PMs, the ASA(ALT) could add language that makes it clear that in the process of doing the required coordination, it is the PM who will have the final authority to say *how* the coordination will proceed and the circumstances under which the coordination will be considered to have been accomplished. (Recall the comments from PMs expressing frustration at not being able to control the content and membership of IPTs.)³ Again, the goal is to make the new AR 70-1 policy into something that directly supports and reinforces in the minds of Army PMs that they do, in fact, have specific

³ An October 1999 OUSD(A&T) document, *Rules of the Road: A Guide for Leading Successful Integrated Product Teams*, states that "the PM, or designee, shall form and lead an Integrating Integrated Product Team." See http://www.acq.osd.mil/ap/21oct99rulesoftheroad.html#_Toc462717248.

and citable authority that allows them to be forceful, bold, and decisive in doing their jobs.

Action 3: Act as a Proponent for the Creation of a "Risk Hedge Fund"

The third and final action for ASA(ALT) consideration has to do with the difficult challenge of providing PMs access to resources that would allow them to hedge against (and thus be more willing to take) risks, e.g., risks on new but not yet fully proven technologies. This action is keyed particularly to the challenges that Army PMs will face as the Army moves forward with its new acquisitions—e.g., of the Future Combat Systems (FCS)—to equip the future force.

On 17 May 2003, the USD(AT&L) approved the Army's request for a Milestone B decision for the FCS.⁴ Because many different kinds of advanced technology are involved with the FCS,⁵ and even though the FCS program is proceeding under the incremental, "evolutionary acquisition" approach (AR initiative 45 in our list), it is still likely that Army PMs who are directly involved with the FCS program (because they are project or product managers for FCS Core Systems), or indirectly involved (because they are project or product managers for FCS Complementary Systems, Unit of Action (UA) Complementary Systems, or Unit of Execution (UE) and Above Complementary Systems), will face situations in which technical risk is present, e.g., at the component or subsystem level. In those situations, it may sometimes develop that a desirable or workable way to hedge against the risk would be to simultaneously fund a less technically risky alternative in parallel with the risky alternative, so that the program is more likely to stay on schedule.

Against this background, the idea of this action is for the ASA(ALT) to set up a formal "Risk-Hedging Cell" supporting the FCS program, whose job it would be to assist FCS and FCS-related PMs to make the case with the relevant acquisition decision authorities (both inside and outside the Army) that (a) an FCS "Technical Risk Hedge Fund" should be established and funded in any case, and (b) such a use of funds from the hedge fund would be justified in this or that particular case.⁶

⁴ As defined in DoDI 5000.2, *Operation of the Defense Acquisition System*, it is at Milestone B in the defense acquisition process that a system transitions from the Concept and Technology Development (CT&D) stage to the System Development and Demonstration (SD&D) phase. Milestone B passage for the Army FCS program is documented in the USD(AT&L) Acquisition Decision Memorandum (ADM) for the Secretaries of the Military Departments, ATTN: Acquisition Executives, SUBJECT: *Future Combat Systems (FCS) Acquisition Decision Memorandum*, 17 May 2003, signed by E.C. "Pete" Aldridge.

⁵ Information on the range of technologies envisioned for the FCS is presented in the *Army Future Combat Systems Unit of Action Systems Book*, Version 3.0, U.S. Army Materiel Systems Analysis Activity (U.S. AMSAA), 22 May 2003.

⁶ There is an historical precedent for this idea in Army acquisition—the Warfighting Rapid Acquisition Program (WRAP)—which suggests that Congress would respond favorably if the Army were to propose this action. Requested in 1996, the Congress funded the WRAP program with \$50 million in the Army FY97 budget. Details

It would be particularly appropriate for the ASA(ALT) to take this action given the goals for the FCS program as stated by the USD(AT&L) in the FCS Milestone B Acquisition Decision Memorandum (ADM). The ADM states that the FCS program “must remain flexible and open to accommodate trades in the system architecture and in the individual systems’ designs, with the ultimate objective of providing an effective, affordable, producible, and supportable increment of military capability.” This statement opens the door for the ASA(ALT) to make the case for the establishment of an FCS hedge fund to support flexibility in the program to keep it on track.

The idea of also establishing a “Risk-Hedging Cell” within the Office of the ASA(ALT) is motivated by the very complex program-oversight structure the Army will be dealing with for its future force acquisitions. The FCS Milestone B ADM states that “due to the complexity of the program, OSD will apply a special management oversight and review process to surface issues promptly for resolution, and to ensure synchronization of complementary systems and external interfaces. Because of the overriding importance of the network integration to the success of the FCS program, the elements of the network and the C4ISR⁷ components of the program must meet the requirements for net-centric capabilities promulgated and managed by the [DoD Chief Information Officer].” Given that the Army will be dealing with this high-level oversight, it makes sense for it to plan to capitalize on the access to resources that the oversight bodies can provide.

In particular, the ADM goes on to specify that “AT&L, with Joint Staff (JS), Network and Information Integration, and Army” are to define a “Joint Force Integration management approach, to include Joint Staff Functional Capabilities Board(s) to align requirements and an AT&L-led Task Force to focus on Capability Roadmap and Investment Strategy.” The nature of these oversight bodies—and the fact that they are all located in Washington, D.C.—is enough to justify the creation of an FCS Risk-Hedging Cell in the Office of the ASA(ALT) in the Pentagon, whose job it would be to help FCS PMs work resourcing issues with these oversight bodies when they arise—under the presumption that these oversight bodies will offer access to resources that otherwise might not be as readily available to the Army in a traditional acquisition. Because the Army must deal with these oversight realities, it makes sense to capitalize on the opportunities they offer to expand access to resources.

on WRAP can be found in the November 1998 GAO report, GAO/NSIAD-99-11, available at <http://www.gao.gov/>.

⁷ Command, Control, Computers, and Communications, Intelligence, Surveillance, and Reconnaissance.

Major Events in Acquisition Reform

- 1972 Commission on Government Procurement
- 1974 Office of Federal Procurement Policy Act
- 1982 Executive Order 12352 (established the FAR and directed procurement reforms)
- 1983 Grace Commission
Office of Federal Procurement Policy Act
- 1984 Federal Acquisition Regulation (FAR)
- 1985 Department of Defense Procurement Reform Act
- 1986 Department of Defense Reorganization Act ("Goldwater-Nichols Act")
Packard Commission
- 1989 Defense Management Report (July 1989–1992: multiple Defense Management Report Decisions (DMRDs)
National Defense Authorization Act for FY90
- 1990 Defense Acquisition Workforce Improvement Act
- 1992 National Defense Authorization Act for FY93
- 1993 Acquisition Law Advisory Panel
Army Acquisition Policy Reform Steering Group established
Government Performance and Results Act
National Defense Authorization Act (NDAA) for FY94
National Performance Review/National Partnership for Reinventing Government

- Section 800 Panel Report (called for in FY90 National Defense Authorization Act)
- 1994 Secretary of Defense Perry's "Acquisition Reform: A Mandate for Change"
DUSD for Acquisition Reform Office first established
Federal Acquisition Streamlining Act (FASA)
- 1995 Commission on Defense Roles and Missions (CORM)
National Defense Authorization Act for FY96
- 1996 Administrative Dispute Resolution Act
Army XXI Acquisition Reform Reinvention Laboratory established at request of ASA/RDA Decker and with direction of Chief of Staff, Army
Executive Order 13011 (implemented ITMRA)
Federal Acquisition Reform Act (FARA) (together with ITMRA, known as "Clinger-Cohen Act")

Information Technology Management Reform Act (ITMRA) (together with FARA, known as "Clinger-Cohen Act")
National Defense Authorization Act for FY97
- 1997 Defense Reform Act
Quadrennial Defense Review #1, issued May 1997 (called for by FY95 NDAA)
National Defense Authorization Act for FY98
- 1998 Acquisition Results Act
National Defense Authorization Act for FY99
USD(A&T) (Jacques Gansler) gave testimony on acquisition reform to the Senate Armed Services Committee Subcommittee on Acquisition and Technology
- 2000 National Defense Authorization Act for FY01
- 2001 DoD 5000 rewrite
National Defense Authorization Act for FY02
Freedom to Manage Act
Procurement Integrity Act

63 Acquisition Reform Initiatives

1. Commercial Sourcing: FAR Part 12 Procurements

Reduces restrictive laws and domestic source restrictions that limited contractors from using commercial sources. The aim is to reduce contract cost and schedule, and to improve access to the commercial market. The NDAA for FY00 (PL 106-65) allowed expansion, on a pilot basis, of commercial procurement to certain types of service contracts.

Linked to initiatives 18, “Performance-Based Services Contracting” and 63, “Modernization Through Spares.”

2. Competitive Sourcing

The OMB Circular set out the requirement to market-test federal civilian/military jobs that are not “inherently governmental” by exposing them to external competition, and the procedures by which this was to be accomplished. The Bush administration has set a target of market-testing a total of 50 percent of federal “non-inherently governmental” posts, with interim targets for market-testing of a total of 42,500 jobs by September 30, 2002, and a further 85,000 jobs per annum thereafter. The intention was to expose as much as possible of federal work to commercial pressures and practices, in order to improve efficiency, encourage innovation, and improve the quality of work.

3. Cost-Schedule Reporting Standards Tailored to Industry Guidelines

Cost/Schedule Control System Criteria (C/SCSC), which required contractors to have integrated management control systems to plan, monitor, and control the execution of cost-reimbursable contracts, were modified to accept industry’s earned value management criteria. A USD(A&T) memo (Gansler, 1999) stated that industry guidelines (drafted by NSIA, AIA, EIA, SCA, and ABA) are acceptable substitutes. A program manager can tailor C/SCSC requirements to specific program needs. Defense Contract Management Command (DCMC) is the DoD Executive Agent for Earned Value Management Systems. The aim is to reduce the regulatory

overhead and hence to cut contractor time and costs, and to provide better-targeted management information for PM.

4. DoD Purchase Card (IMPAC)

Use of DoD purchase card, especially for micro-purchases (less than \$2,500), aimed at reducing the associated buying costs, essentially by exempting micro-purchases from FAR procurement regulations (including exemptions from the Buy American Act, certain small business requirements, and the general requirement for competition). First government-wide commercial purchase card contract was placed by the General Services Administration in 1989; DoD was part of the program from that time. In 1993, Vice President Gore's National Performance Review recommended increased use of the card by government agencies, and this was again emphasized by FASA 94 and Executive Order 12931 of October 13, 1994 on federal procurement reform. By FY98, the card was available to 160,000 DoD employees. Secretary of Defense Cohen's November 1997 report on the Defense Reform Initiative set a target of January 1, 2000 for all DoD electronic catalog or "e-mall" purchases to be made using the purchase card system. Card may be used for all micro-purchases in the United States; for purchases of most commercial items up to \$25,000 outside the United States; and for certain types of nongovernment training up to \$25,000. Use of the card above \$25,000 (other than for training) is limited to payment for items contracted for in the normal way.

Payment for micro-purchases other than by using the purchase card requires a waiver by an SES (Senior Executive Service) member (since October 2, 1998).

(IMPAC, the original government purchase card, stands for "International Merchants' Purchase Authorization Card" and was a VISA card issued by the Rocky Mountain Bank Card system. New banks were later appointed.)

5. Elimination of Mil Specs and Mil Standards

A Secretary Perry policy to use performance specifications and commercial standards for defense systems acquisition solicitations and contracts, in preference to design-specific specifications and standards, the use of which would require a waiver from the component acquisition executive or a designee. Waivers were not required for repurchases of items already in the inventory. Where granted on a "class" basis, they would be valid for two years. Special arrangements were to apply in the naval nuclear propulsion field. All new contracts over \$100,000 were to be placed on the basis of performance specifications, and existing contracts worth \$500,000 on which significant effort remained outstanding were to have performance specifications introduced where possible. Intention was to reduce time taken both to place, and to fulfill, a contract, and to improve access to the commercial market.

Linked to initiatives 9, "Single Process Initiative," and 28, "Contractor-Maintained Design Configuration."

6. Elimination of Non-Value-Added Packaging Requirements

Initiative eased packaging specifications to allow use of more commercial-type packaging standards where appropriate. MIL-STD-2073-1C was revised in October 1996 to emphasize maximum use of commercial packaging, and to specify that military packaging was required only on items expected to enter the military distribution system. The aim is to reduce packaging costs, and make defense business more attractive.

Linked to initiative 9, "Single Process Initiative."

7. Elimination of Non-Value-Added Reporting Requirements/CDRLs

Initiative reviewed and cancelled obsolete/unnecessary data item descriptions (DIDs) by services, Defense Logistics Agency (DLA), and OSD. Required management data items were limited to those essential for effective control. The aim is to reduce contractor costs in preparation of unnecessary reports.

8. Revised Thresholds for Certified Cost and Pricing

The Truth in Negotiations Act (TINA) required contractors to justify cost proposals and proposed contract prices with detailed cost or pricing data that had to be certified as to its accuracy, completeness, and currency. FASA 94 recognized that reliance on unnecessary cost or pricing data increased the costs of proposal preparation, extended acquisition lead times, and wasted resources. FASA 94 therefore raised the threshold for certification of such costs to \$550,000.

Linked to initiative 10, "Use of Commercial and Other Exemptions for Cost or Pricing Data."

9. Single Process Initiative (SPI): includes use of commercial soldering/manufacturing; commercial standards/practices for calibration; commercial procedures for shipping documentation

SPI allows a single process for both commercial and military products, to reduce contract schedule and cost, increase quality, and improve access to the commercial sector. To ensure that existing contracts reap the benefits of this initiative, block changes of multiple contracts have been implemented at many facilities. Removing government-unique requirements makes it easier and cheaper for contractors to produce military products by using existing commercial processes and production lines, and hence increases government access to the commercial sector. The Principal Deputy USD(A&T) chaired the DoD SPI Executive Council, which met quarterly. Several companies established their own internal corporate SPI councils, usually with attendance from appropriate DoD organizations. These corporate councils could feed issues into the DoD Executive Council for resolution. SPI is a development of the "Civil-Military Integration" initiative, and is linked to initiative 5, "Elimination of Mil Specs and Mil Standards." Commercial soldering: MIL-STD 2000A for new

contracts was cancelled in June 1995, and the requirement is being progressively removed from older contracts. Calibration: DSIC cancelled MIL-STD-45662A: contractors may now choose commercial standards such as ANSI/NISC 2 540-1, ISO 10012-1, or equivalents.

10. Use of Commercial Data and Other Exemptions for Cost or Pricing Data

The intention was to remove from suppliers at all levels the burden of keeping cost data on commercial products in specific formats, which may not be required for any other purpose than DoD contracts. The aim was to move from a cost-based system (primarily focused on justifying costs, not reducing them) to a price- or value-based system (price based on value to the customer—whatever the market will bear) to the maximum extent possible, thus reducing bid costs and increasing access to the commercial market. Specified exemptions apply to commercial items (including modifications that do not alter the commercial nature of the item), items for which adequate alternative means of establishing price reasonableness are available, items below the simplified acquisition procedures threshold of \$100,000 (\$200,000 outside U.S.), and others (FAR Part 15.403). A waiver may also be applied in other circumstances, where appropriate.

Linked to initiatives 19, "Price-Based Acquisition," and 8, "Revised Thresholds for Certified Cost and Pricing."

11. Use of Commercial Warranties and Other Product Liability Issues

FASA 94 requires contracting officers to take advantage of commercial warranties, and requires them to ensure that, as far as possible, the government benefits from at least the same warranty terms as those customarily available to the general public. The aim is to minimize costs and increase access to commercial products.

12. Alternative Dispute Resolution

Aimed at facilitating the resolution of disputes between government and contractor while avoiding formal litigation. ADR offers voluntary procedures to resolve disputes, including conciliation, mediation, fact-finding, arbitration, and the use of ombudsmen. The intention is to improve the relationship between the government and its suppliers by encouraging good communications to avoid dispute in the first instance, and then alternatives to litigation when problems do arise. The aim is to avoid delays arising from litigation and reduce contract cost.

13. Best-Value Contracting: Consideration of Cost/Performance Tradeoffs

Contracts are awarded on the basis of "best value," not "lowest cost." All relevant factors—cost, performance, quality, schedule, considered and potential tradeoffs—are taken into account. Contracts are to minimize the number of critical performance criteria so as to allow contractors maximum flexibility to innovate to meet overall

program objectives. The aim is to reduce contract award schedule and reduce contract cost.

The Army (AMC) undertook much of the original development of "best-value" philosophy, leading to the publication of the original AMC Pamphlet 715-3 in 1995. ASA (Procurement) (Kenneth Oscar) cited best-value contracting as one of his FY99 "Primary Areas of Interest" and instructed commanders to establish metrics to measure its successful implementation.

14. Better Post-Award Debriefing

The initiative encourages better communications between government and suppliers, including better, more thorough post-award debriefings to losing competitors. The aim is to reduce cycle time and avoid nugatory costs by avoiding formal contract protests, and to improve competition next time round by helping losing bidders to understand their weaknesses and to improve their next proposal.

15. Greater Use of Parametric Cost Estimating

The initiative allowed the use of parametric cost estimating on firm proposals offered to DoD, with the aim of reducing bid proposal costs.

16. Multi-Year Contracting

Multi-year contracting allows more stable, longer-term relationships between DoD and a supplier than are enabled by traditional annual commitments. Multi-year contracting has been possible for a long time, but its use was limited by restrictive implementation guidance and return-on-investment criteria. FASA 94 broadened the applicability of multi-year contracting and provided a preference for longer-term supplier relationships. Multi-year contracts must demonstrate significant advantage (e.g., in pricing) over annual contracts, and may be used for contracts for either goods or services. A multi-year contract may not cover more than a five-year period. Funding need not necessarily be in place from the outset, but if not, cancellation charges will apply if the contract has to be cancelled due to failure to appropriate adequate funds in due course.

Linked to initiative 49, "Program Stability."

17. Other Transaction Authority

The initiative allowed certain projects to be based on arrangements other than contracts, grants, or cooperative agreements, under the authority of 10 USC 2371, and outside the normal regulatory environment of FAR/DFARS. OTA arrangements avoid provisions of the Competition in Contracting Act, TINA, Contract Disputes Act, Procurement Protest System, PL 85-804 and indemnification, Procurement Integrity Act, and part of the Buy American Act. The use of OTA began with some prototype and research projects; then the FY97 Authorization Act expanded coverage

to include military services, while requiring competitive procedures as far as possible. The intention is to reduce contract schedule and cost while improving both quality and access to the commercial market, by allowing tremendous flexibility to negotiate appropriate terms and conditions.

18. Performance-Based Service Acquisition

For service provision contracts, the contract is to specify the "what" and not the "how," i.e., be output-based, avoiding intrusive and inappropriate inspection and other oversight processes. The aim is to reduce contract costs, improve quality of service, and increase access to the commercial sector. DoD has a goal (set by Jacques Gansler, April 5, 2000) to have 50 percent of all contracts (by both dollar value and number of contracts) for services to be performance-based by 2005.

Linked to initiatives 1, "Commercial Sourcing," and 48, "Performance-Based Progress Payments."

19. Price-Based Acquisition

Price-Based Acquisition is a way of doing business that results in a firm-fixed price (or fixed price with performance incentives) contract and a fair and reasonable price without the government obtaining supplier cost data. Implementation will require changes to requirements generation and acquisition processes to allow use of price-based acquisition for research and development without shifting significant risk to the contractor.

Linked to initiatives 10, "Use of Commercial and Other Exemptions for Cost and Pricing Data," and 8, "Revised Thresholds for Certified Cost and Pricing."

20. Rights in Technical Data and Computer Software

Secretary Perry's Mandate-for-Change proposals included a proposal to limit government acquisition of rights in technical data only to what had been directly government-funded. The contractor retains the rights to data developed at private expense. The aim is to reduce contract cost and increase access to the commercial market.

21. Streamlined Contract Close-Out Process

The initiative arose from various Process Action Team proposals relating to internal government operations and external contractor operations. Included changes to interim and final billing rates and increased "quick close-out" threshold. Aimed at decreasing the time to close out contracts.

The initiative was given added impetus by the requirement to support the transition from MOCAS (Mechanization of Contract Administration Services) to DPPS (Defense Procurement Payment System). New contracts were to be administered by DPPS from January 2001, while old contracts would be supported on MOCAS only

until the first of October 2002, requiring the close-out of all complete contracts (as well as the conversion of all continuing contracts) by that time.

Quick close-out procedures are allowed for contracts where the indirect costs remaining to be settled do not exceed \$1 million.

22. Tailored Negotiation of Forward Pricing Rates

Allows tailored forward pricing rate agreements for smaller contracts when facility-wide agreement is not possible. Also allows elements of a forward pricing rate agreement to be renegotiated rather than the entire agreement. The aim is to reduce overall costs arising from oversight requirements.

23. Use of EDI/e-commerce, etc. to Streamline Procurement and Reporting Process: includes electronic issue of RFPs; electronic contracting; facilitation of contractor payment; integrated digital environment; streamlining of engineering design and testing; facilitation of information exchange between government/contractor; shipping documentation/GBLs, etc.

Secretary of Defense Cohen's March 1999 Defense Reform Initiative report stated a target of 2010 for a DoD-wide electronic environment. The aim is to reduce bid and contract costs, reduce time, improve the quality of data, and to improve government/industry communications (and hence the relationship) by initiating, conducting, and maintaining as much business as possible within government, and between government and industry, without requiring hard copy transactions. Allows DFAS major contract payments by electronic funds transfer to reduce cash flow cycle time. Allows use of commercial practices (TRAMS; CFMS) for shipping documents, and use of third-party traffic management on FOB origin contracts/use of commercial bills of lading.

All new DoD contracts from FY97 were to require online access to, and delivery of, program and technical data in digital form. From July 1, 1998, DoD planned to stop volume printing of all DoD-wide regulations and instructions and to use web-based versions instead.

The DoD Chief Information Officer (CIO) is responsible for e-business leadership, policy, and direction.

This initiative has been implemented in the Army's "Army Single Face to Industry" (AFSI) program. See <https://acquisition.army.mil/asfi/>.

24. "Open Systems" Approach

Designing open systems and specifying interface standards enhances operability, both among the U.S. armed services and with allies. Applying widely used interface standards in weapon systems will enable multiple sources of supply and technology insertion and allow for upgrading in service. Therefore linked to initiative 45, "Evolutionary Acquisition."

The aim is to reduce contract schedule and cost, increase quality by allowing more effective solutions, and increase access to the commercial sector.

25. Advanced Concept Technology Demonstration (ACTD)

ACTD efforts allow operational forces to experiment with new technology in the field to evaluate potential changes to doctrine, operational concepts, tactics, modernization plans, and training. After ACTD, the system can enter the acquisition process at any appropriate point. The aim is to expedite the movement of maturing technologies from the developer to the user as quickly as possible, providing the warfighter with a prototype capability and supporting him in its evaluation.

26. Commercial Engineering Drawing Practices

The aim is to reduce the time and cost of engineering drawings by allowing use of commercial standards, reducing, *inter alia*, the level of detail required.

27. Concurrent Developmental/Operational Testing

Test and Evaluation plans are to be structured so as to allow the maximum possible concurrent developmental and operational testing throughout the acquisition process, bringing together all relevant testing agencies. The aim is to reduce contract schedule and cost. The goal of integrated T&E is to provide early operational insights into the developmental process. This early operational insight should reduce the scope of the integrated operational test and evaluation (OT&E), thereby contributing to reduced cycle time and total ownership costs (TOC).

28. Contractor-Maintained Design Configuration

Use of performance-based acquisition reduces oversight of contractor configuration management practices and allows technology updates and other changes without extensive contract amendment. The aim is to reduce contract schedule and cost and improve quality while increasing access to the commercial sector.

Linked to initiative 5, "Elimination of Mil Specs and Mil Standards."

29. Rapid Prototyping for Software Development

Envisages speeding up development (hence reducing contract schedule) and improving product quality by creating a working model of a software module to demonstrate feasibility, then refining it for inclusion in final product.

Linked to initiative 63, "Modernization Through Spares."

30. Simulation-Based Acquisition

A process in which DoD and industry are enabled by the robust, collaborative use of simulation technology integrated across acquisition phases and programs. Modeling techniques test and evaluate design without the need for hardware prototypes, and may allow earlier systems engineering decisions, concurrent evaluations throughout

the project, and a better balancing of life-cycle costs. Intended to improve dramatically the acquisition process by the application of advanced information technology, by reducing contract schedule and costs and improving quality.

The DoD Modeling and Simulation Acquisition Council is DoD's executive simulation policy-planning group for the four services.

Within the Army, SBA is incorporated into the Army's "Simulation and Modeling for Acquisition, Requirements & Training Program."

Linked to initiative 27, "Concurrent DT/OT."

31. Streamlined ECP Review/Approval

Restricts the use of engineering change proposals (ECPs) in performance-based acquisition to those affecting DoD's performance requirements. The aim is to reduce contract schedule and ECP costs.

Linked to initiative 5, "Elimination of Mil Specs and Mil Standards."

32. Survivability/Lethality Below End-Item Level

The aim is to reduce contract costs by allowing the Secretary of Defense to issue waivers permitting survivability/lethality testing at the system and subsystem level instead. This authority is required in such circumstances to certify to Congress that the testing of the full weapon system would be unreasonably expensive and impracticable. This authority (to issue the waiver and to report to Congress) was delegated to USD(A&T) on June 26, 1995.

33. "Virtual" Prime Vendor

See initiative 36. "Virtual" Prime Vendor merely expands the concept of PV delivery to include the creation of a "virtual" PV where none currently exists, by appointing a prime contractor to establish a supply chain to bring together and manage a range of required stocks. It is not clear that this in effect constitutes a separate initiative from 36.

34. Enterprise Software Initiative

A joint project designed to implement a true software enterprise management process within DoD. By pooling commercial software requirements and presenting a single negotiating position to leading software vendors, ESI provides pricing advantages to individual services and agencies. It is aimed at providing customer choice and timely cost-effective business solutions rather than at software standardization. The focus is on managing software life cycle to reduce costs and liability exposure, improve software compliance, and provide a better match between usage and contract terms. Summarized in DoD Chief Information Officer (CIO) July 26, 2000 memo, Money (2000), as "point and click information technology shopping at lowest cost."

ESI operates under the purview of the DoD CIO Executive Board; there is also an ESI Joint Steering Group, led by DoD's Deputy CIO. ESI was endorsed by the new Business Initiative Council as its first "quick win." The Navy is the DoD lead for all office software requirements and for all Microsoft software products. The Army's Small Computer Program Office (Fort Monmouth, New Jersey) is the Army's executive agent for all Army ESI purchases (this office won the David Packard Excellence in Acquisition Award in September 2001).

35. Logistics Transformation

Aimed at transforming DoD's mass logistics system into a highly agile, reliable system that delivers logistics on demand. Logistics reform will move toward performance-based support and link modern warfighting and modern business practice. Logistics transformation aims to apply the commercial world's focus on customer service, integrated supply chains, rapid transportation, and e-commerce techniques to military logistics, emphasizing readiness and rapid service to the warfighter. Can be encapsulated as a move from a "just-in-case" to a "just-in-time" mindset.

Secretary of Defense Cohen's March 1999 report on the Defense Reform Initiative noted that, from a 1997 baseline of \$83 billion, the aim was to achieve a 20 percent reduction of total logistics costs (i.e., to \$66 billion).

Linked to initiatives 50, "Reduction in Total Ownership Cost," and 63, "Modernization Through Spares."

36. Prime Vendor Delivery

From 1993, DoD began shifting over to a new process in which DoD, instead of buying and stocking large amounts of readily available items, would enter into a longer-term supply arrangement under which goods, at prenegotiated terms and prices, could be called forward on an as-required basis and delivered directly to the point of need, eliminating the need to maintain stocks and incur the associated storage costs. While the supply service may cost more than the individual items procured traditionally, DoD expected to make overall savings through eliminating in-house storage and management costs, and to reduce delivery time.

Linked to initiative 50, "Reduction in Total Ownership Cost."

37. Reduction of Multiple Software Capability Evaluations

A DCMC-led effort to coordinate software capability evaluations and to provide feedback to contractors, thus reducing time and contractors' costs.

38. Alpha Contracting

Alpha Contracting (also known as IPT pricing and "one pass" contracting) involves all the government participants in a contract negotiation (DCMA, DCAA, buying command) getting together as a team and staying in continuous communication with

the contractor while the contractor develops the proposal. The team concurrently evaluates, analyzes, and resolves issues during proposal development. The intention is to improve communication with the contractor, improve the quality of the proposal, reduce the time needed to negotiate a proposal by avoiding successive iterations, and create a "no surprises" culture on proposal delivery.

39. Improved Pre-Solicitation Phase Communication

The intention was to improve the quality of bids and reduce bid and proposal costs, by improving pre-bid discussions to enhance the bidders' understanding of the requirement and DoD's understanding of suppliers' capabilities and any potential problems.

40. Oral Presentations

Oral presentations of industry proposals are intended to reduce the contractor's time and cost in submitting proposals and to improve the dialogue between government and industry, thus reducing cycle time and costs and improving the quality of both the eventual agreement and the communication between government and industry throughout the life of the program.

41. RFP Streamlining: includes use of performance-based requirements; cost as a military requirement

The aim was to cut both government and contractors' costs by reducing the size and complexity of requests for proposals (RFPs). In particular, RFPs were to avoid unnecessary SOW [statement of work] complexity and contract clauses, and to focus on output-based requirements rather than detailed specifications.

Cost as a military requirement allows the warfighter to judge what a system is "worth" in comparison with other needed capabilities and their costs. The Operational Requirements Document must contain cost objectives to allow an affordability determination to be made early in a proposed acquisition program.

42. Use of Past Performance Data

FASA and related memoranda require collection and use of contractor past performance data (although OFPP [Office of Federal Procurement Policy in the Office of Management and Budget] on December 18, 1996 relieved all federal agencies from mandatory requirements for source selections on contracts below \$1 million (FAR Part 15) and for past performance evaluations on contracts below \$1 million (FAR Part 42)). Past performance data are to be a significant factor in source selection (and to be a key factor in source selection for service contracts). The aim is to improve the quality of purchased goods and services and to motivate contractors to perform better.

43. Contractor Total System Performance Responsibility (TSPR)

TSPR was originally used in the past as a contract condition that obligated the prime contractor to be totally responsible for all integration of an entire weapon system. This ensured that the government received an integrated system that would meet the performance requirements as defined in the system specification. TSPR has now evolved as a new approach to sustaining programs. Under this new approach, the focus is on management responsibility versus development responsibility. This approach generally involves the identification of core government functions. All non-core government functions become the responsibility of the contractor, and the government retains the core functions. Core government functions generally include Program Direction; Budgeting/Financial Execution; Product/Service Acceptance; Requirements Determination; Contract Management; and Security. Outside these core government functions, the TSPR concept involves a single contractor assuming complete responsibility for overall performance in the weapon system's field of operations and sustainment. The overarching goal is to reduce costs while maintaining or improving quality and service levels.

44. Cost as an Independent Variable (CAIV)

CAIV is used to develop strategies for acquiring and operating affordable systems by setting aggressive achievable cost objectives and managing achievement of these objectives. Key stakeholders help set and achieve cost objectives, identifying potential tradeoffs, e.g., through participation in cost performance IPTs. As system performance and cost objectives are decided (on the basis of cost-performance tradeoffs), the requirements and acquisition processes will make cost more of a constraint and less of a variable, while nonetheless obtaining the required military capability. The aim is to achieve life-cycle cost savings through repeated tradeoff analysis at all stages.

Linked to initiative 50, "Reduction in Total Ownership Cost."

45. Evolutionary Acquisition

DoD Instruction 5000.2 provides for a flexible process for rapid acquisition of mature technology, with evolutionary acquisition strategies and time-phased requirements that allow early fielding of a usable warfighting capability, with block upgrades to full capability over time. USD(AT&L) announced in June 2001 his intention to amend the regulations to mandate an evolutionary, or spiral, approach to all future acquisitions unless the program manager could prove that such an approach was inappropriate for a particular program.

Also linked to initiative 24, "Open Systems Approach."

46. Integrated Product and Process Development

IPPD uses cooperative working among key stakeholders from all relevant disciplines from the earliest design phase to deliver a cost-effective producible, high-quality, supportable and “right the first time” design.

Closely intertwined with initiative 47, “Joint Government/Industry IPTs.”

47. Joint Government/Industry IPTs

Integrated Product Teams including both government and industry are replacing the traditionally adversarial relationships among key players (users, acquirers, testers, funds managers, contractors, etc.) with cooperation and teamwork to achieve targets. The intention is to eliminate functional stovepiping by bringing all relevant functions together in an integrated decision team with all the necessary expertise to address and resolve problems at the earliest moment and lowest level possible, thus reducing time, cost, and a part of the oversight overhead, and improving solution/product quality.

Different levels of IPTs are envisaged: overarching, working-level, program management office-level, and below.

Linked to initiative 46, “Integrated Product and Process Development.”

48. Performance-Based Progress Payments

Originally only for contracts for noncommercial items procured noncompetitively but recently extended to include R&D contracts and competitively negotiated contracts, this initiative allowed contract financing based on meaningful output/outcome rather than on input costs (labor/materials/overheads). Allows financing of up to 90 percent of price (as opposed to 80 percent for normal progress payments). The aim is to reduce the potential for delay by incentivizing the contractor to meet delivery schedule. Since the mechanism reduces oversight, it is attractive to nontraditional defense suppliers.

Linked to initiative 18, “Performance-Based Services Contracting.”

49. Program Stability

The Perry proposals emphasized the need to provide more funding stability and flexibility to manage programs in the best manner possible. They encouraged the development of innovative funding methods that would alleviate inappropriate impact on program management, and urged the need to reduce unexpected program budget changes. The intention was to reduce cost and cycle time by avoiding “stop-go” program management.

Linked with initiative 16, “Multi-Year Contracting.”

50. Reduction in Total Ownership Cost (RTOC)

This initiative aims to ensure that investment decisions are made on the basis of the through-life costs of an acquisition program, and not just on the basis of the initial acquisition cost. In respect of savings efforts, it aims to ensure that any savings identified are equally considered on a whole-life basis, so that short-term gains are not outweighed by higher downstream costs. The pilot programs were encouraged to focus on three types of actions: reliability and maintainability improvements; reduced supply chain response times; and competitive sourcing of product support.

The 10 original Section 816 pilots were: M-1 Abrams; AH64 Apache; FSC2; Navy Aviation Support Equipment; H-60; SLAM-ER; B-1; C-5; C/KC-135; and F-16. To these were subsequently added: CH-47; Guardrail; TOW-ITAS; Comanche; HEMTT; Crusader; MLRS/HIMARS; AAV; Common Ship; MTRV; Aegis cruiser; EA-6B; CVN-68 carriers; LPD-17; AWACS; F-117; C-17; JSTARS; Cheyenne Mtn; and SBIRS.

Linked to initiatives 35, "Logistics Transformation," 36, "Prime Vendor Delivery," 44, "Cost as an Independent Variable," and 63, "Modernization Through Spares."

51. Direct Submission of Cost Vouchers to DFAS (or other disbursing office)

Contractors with adequate billing systems who have been authorized by DCAA may submit bills (other than for first and last contract payments) direct to DFAS. The aim is to reduce cash flow cycle penalty arising from oversight requirements.

52. Elimination of Non-Value-Added Receiving/In-Process/Final Inspection and Testing

The aim is to reduce contract cost and improve access to the commercial market by shifting from a management philosophy that attempts to achieve high quality and performance through after-the-fact inspection and testing to one that prevents defects through controlling its processes and reviewing the process controls of its contractors rather than through hands-on inspection. For commercial items, reliance was to be placed on the contractor's in-house quality assurance system, unless customary commercial practice allowed in-process inspection for a particular item. The initiative also aims to ensure that when inspection and testing are unavoidable, they are done in the most unobtrusive manner necessary to add value to either the overall process or the particular acquisition, consistent with the risk of impact to the government in the absence of such oversight. Achieved through elimination, conversion, and revision of various mil specs and mil standards, eliminating most government-unique requirements. (Note that the SPI process of block change used to give contractual effect to change in existing contracts.)

53. Elimination of Redundant Oversight (PMO/Services/DCMC)

This initiative reduces redundant oversight by DCMC, service buying activities, and program management offices. It employs a risk management approach to focus on high-risk areas rather than blanket oversight. The aim is to reduce contractors' costs arising from duplicatory visits, reviews, reports, etc.

54. Cost Accounting Standards Exemptions

The intention was to remove from suppliers at all levels the burden of keeping cost data on commercial products in specific formats, which may not be required for any other purpose than DoD contracts. FASA 94 allowed certain contracts and subcontracts worth less than \$15 million to be exempt from normal federal cost accounting standards if it could be shown that the contractor was primarily engaged in the sale of commercial items and if it had no other CAS-subject contracts.

55. Reduced Number of TINA Sweeps

This initiative allowed the agreement of a cutoff date to eliminate endless TINA (Truth in Negotiations Act) sweeps prior to contract signature, in order to reduce bid costs.

56. Reduction/Elimination of Contractor Purchasing System Reviews

Reviews are to be based solely on risk assessments and thus conducted only when necessary rather than time-based. They are to be limited in scope to those areas where sufficient data are not already available, and are to make maximum use of existing contractor data. The aim is to reduce time and costs arising from such reviews.

57. Risk-Based Approach to DCAA Oversight

The aim is to reduce the oversight burden, and hence the cost to contractors, on relatively straightforward routine acquisition programs, and focus DCAA oversight instead on high-risk programs, rather than a blanket "one-size-fits-all" approach. "Risk" may be technical, financial, commercial, or other risk factors.

58. Streamlined Defense Industrial Security Program Requirements

The aim is to put in place a simplified uniform cost-effective industrial security regime that minimizes the costs of security policies, procedures, and incident reporting while ensuring the security of sensitive information and technology.

59. Streamlined Documentation/Resolution of Nonconforming Material Issues

Cancellation of MIL-STD-1520A allows contractors to use less expensive but equally effective means to identify and correct nonconforming parts and materials, which avoids unnecessary paperwork and reduces contractors' costs and cycle time.

60. Streamlined Government Property Management Requirements

FAR Part 45 requirements (accounting for and maintaining government furnished property) were modified to set a new threshold of \$1,500, below which contractors are not required to track such property. The aim is to reduce documentation requirements and to reduce costs to the contractor without exposing DoD to undue risk of loss, damage, or destruction of property.

61. Use of Commercial Quality Standards (e.g., ISO 9000)

Commercially accepted quality standards such as ISO 9000 were to be recognized in place of military-specific standards such as MIL-Q-9858A, MIL-I-45208, etc., thus reducing unnecessary paperwork, eliminating redundant QA systems and oversight, reducing contractors' costs, and improving quality and access to the commercial market.

Linked to initiative 9, "Single Process Initiative."

62. Contractor Cost Sharing

Traditionally, defense contractors had sometimes been obliged, through DoD R&D contracts, to contribute private venture funds to DoD development programs. This practice was judged to be reducing the return on investment that contractors could expect from DoD contracts, thus making such work less attractive as well as endangering the financial stability of the defense industrial base. The new policy required that no DoD R&D contracts should contain any direct or indirect (e.g., cost ceilings) encouragement or obligation on the contractor to contribute to the development cost: the only exception envisaged would be where there was a reasonable probability of a potential commercial application.

63. Modernization Through Spares

The goals of the Commercial Operations and Support Savings Initiative (COSSI) are to improve readiness and reduce operations and support costs by inserting commercial items or technology into military legacy systems. The Army program is known as "Modernization Through Spares" (MTS) and emphasizes the rapid development of prototypes and fielding of production items based on current commercial technology.

Linked to initiatives 1, "Commercial Sourcing," 29, "Rapid Prototyping for Software Development," 35, "Logistics Transformation," 45, "Evolutionary Acquisition," and 50, "Reduction in Total Ownership Cost."

63 Acquisition Reform Initiatives in Chronological Order

Competitive Sourcing	March 1966
DoD Purchase Card	1989
Performance-Based Service Acquisition	September 1991
Prime Vendor Delivery	1993
Improved Pre-Solicitation Phase Communication	January 1993
Advanced Concept Technology Demonstration	1994
EDI	1994
Elimination of Mil Specs and Mil Standards	February 1994
Elimination of Non-Value-Added Receiving/ In-Process/Final Inspection and Testing	February 1994
Elimination of Non-Value-Added Reporting Requirements/CDRLs	February 1994
Integrated Product and Process Development	February 1994
Program Stability	February 1994
Multi-Year Contracting	February 1994
Rights in Technical Data and Computer Software	February 1994
Contractor-Maintained Design Configuration	March 1994
Single Process Initiative	June 1994
Risk-Based Approach to DCAA Oversight	October 1994
Concurrent Developmental/Operational Testing	November 1994

Open Systems Approach	November 1994
Rapid Prototyping for Software Development	November 1994
Streamlined Defense Industrial Security Program Requirements	January 1995
Commercial Engineering Drawing Practices	February 1995
Streamlined ECP Review/Approval	February 1995
RFP Streamlining	March 1995
Streamlined Documentation/Resolution of Nonconforming Material Issues	March 1995
Streamlined Government Property Management Requirements	March 1995
Elimination of Redundant Oversight (PMO/Services/DCMC)	April 1995
Past Performance Data	April 1995
Commercial Sourcing: FAR Part 12 procurements	June 1995
Reduction/Elimination of Contractor Purchasing System Reviews	June 1995
Survivability/Lethality Below End-Item Level	June 1995
Streamlined Contract Close-Out Process	July 1995
Parametric Cost Estimating	August 1995
Better Post-Award Debriefing	September 1995
Commercial Warranties and Other Product Liability Issues	September 1995
Performance-Based Progress Payments	September 1995
Reduced Number of TINA Sweeps	September 1995
Commercial Data and Other Exemptions for Cost or Pricing Data	October 1995
Cost Accounting Standards Exemptions	October 1995
Joint Government/Industry IPTs	October 1995
Reduction of Multiple Software Capability Evaluations	October 1995
Revised Thresholds for Certified Cost and Pricing	October 1995
CAIV (Cost as an Independent Variable)	December 1995

Best-Value Contracting: Consideration of Cost/Performance Tradeoffs	March 1996
Simulation-Based Acquisition	March 1996
Direct Submission of Cost Vouchers to DFAS (or other disbursing office)	May 1996
Alternative Dispute Resolution	June 1996
Tailored Negotiation of Forward Pricing Rates	June 1996
Evolutionary Acquisition	June 1996
Commercial Quality Standards (e.g., ISO 9000)	October 1996
Elimination of Non-Value-Added Packaging Requirements	October 1996
Other Transaction Authority	December 1996
Modernization Through Spares	1997
Cost-Schedule Reporting Standards Tailored to Industry Guidelines	March 1997
Alpha Contracting	October 1997
Logistics Transformation	1998
Contractor Total System Performance Responsibility	1998
Reduction in Total Ownership Cost	April 1998
Enterprise Software Initiative	June 1998
Oral Presentations	1999
Virtual Prime Vendor	November 1999
Price-Based Acquisition	November 2000
Contractor Cost Sharing	May 2001

63 Acquisition Reform Initiatives Grouped by AR Theme

Civilian-Military Integration

Commercial Engineering Drawing Practices
Commercial Sourcing-FAR Part 12
Competitive Sourcing
Contractor-Maintained Design Configuration
Cost-Accounting Standards Exemptions
Cost-Schedule Reporting Standard Tailored to Industry Guidelines
DoD Purchase Card
Elimination of Mil Specs and Mil Standards
Elimination of Non-Value-Added Packaging Requirements
Elimination of Non-Value-Added Receiving/In-Process/Final Inspection and Testing
Elimination of Non-Value-Added Reporting Requirements/CDRLs
Enterprise Software Initiative
Improved Pre-Solicitation Phase Communication
Modernization Through Spares
Other Transaction Authority
Performance-Based Progress Payments
Performance-Based Service Acquisition
Price-Based Acquisition
“Open Systems” Approach
Reduced Number of TINA Sweeps
Reduction/Elimination of Contractor Purchasing Reviews
Revised Thresholds for Certified Cost And Pricing
Rights in Technical and Computer Software
Single Process Initiative
Use of Commercial Data and Other Exemptions for Cost or Pricing Data
Use of Commercial Quality Standards (ISO 9000)
Use of Commercial Warranties and Other Product Liability Issues

Industrial Base

- Better Post-Award Debriefing
- Commercial Sourcing-FAR Part 12
- Contractor Cost Sharing
- Cost-Accounting Standards Exemptions
- Cost-Schedule Reporting Standards Tailored to Industry Guidelines
- Direct Submission of Cost Vouchers to DFAS
- Elimination of Non-Value-Added Receiving/In-Process/Final Inspection and Testing
- Elimination of Non-Value-Added Reporting Requirements/CDRLs
- Improved Pre-Solicitation Phase Communication
- Integrated Product and Process Development
- Joint Government/Industry IPTs
- Multi-Year Contracting
- Performance-Based Progress Payments
- Program Stability
- Reduced Number of TINA Sweeps
- Reduction/Elimination of Contractor Purchasing Reviews
- Revised Thresholds for Certified Cost and Pricing
- Rights in Technical and Computer Software

Waste, Fraud, and Abuse

- Use of Past Performance Data

Streamlining

- Better Post-Award Debriefing
- Advanced Concept Technology Demonstration
- Alpha Contracting
- Alternative Dispute Resolution
- Best-Value Contracting—Consideration of Cost/Performance Tradeoffs
- Concurrent Developmental/Operation Testing
- Contractor Total System Performance Responsibility
- Contractor-Maintained Design Configuration
- Cost as an Independent Variable
- DoD Purchase Card
- Elimination of Mil Specs and Mil Standards
- Elimination of Non-Value-Added Receiving/In-Process/Final Inspection and Testing

Elimination of Non-Value-Added Reporting Requirements/CDRLs
 Elimination of Redundant Oversight (PMO/Services/DCMC)
 Enterprise Software Initiative
 Evolutionary Acquisition
 Greater Use of Parametric Cost Estimating
 Improved Pre-Solicitation Phase Communication
 Integrated Product and Process Development
 Joint Government/Industry IPTs
 Multi-Year Contracting
 Oral Presentations
 Performance-Based Service Acquisition
 Price-Based Acquisition
 Rapid Prototyping for Software Development
 Reduced Number of TINA Sweeps
 Reduction of Multiple Software Capability Evaluations
 Reduction/Elimination of Contractor Purchasing Reviews
 Revised Thresholds for Certified Cost and Pricing
 RFP Streamlining
 Risk-Based Approach to DCAA Oversight
 Simulation-Based Acquisition
 Streamlined Contract Close-out Process
 Streamlined Defense Industrial Security Program Requirements
 Streamlined Documentation/Resolution of Nonconforming Material Issues
 Streamlined ECP Review/Approval
 Streamlined Government Property Management Requirements
 Survivability/Lethality Below End-Item Level
 Tailored Negotiations of Forward Pricing Rates
 Use of EDI

Logistics

Contractor Total System Performance Responsibility
 Integrated Product and Process Development
 Logistics Transformation
 Prime Vendor Delivery
 Reduction in Total Ownership Cost
 "Virtual" Prime Vendor

Evaluating Acquisition Reform

This appendix provides direct quotations of statements and comments made by government and industry personnel during the interviews done for the project. They are presented here to provide a direct sense of what the RAND Arroyo Center study team was told in the interview process, so that readers can decide for themselves whether the interpretations given in Chapters Four and Five in the main body of the report accurately capture both the content and flavor of what the people interviewed for the project had to say.

What Has Been Good About Acquisition Reform?

“The DAB (Defense Acquisition Board) review and milestone approval for the program could not have been done without AR.” (PM—military)

“Overall AR was a great idea—we’ve used it and it has saved a lot of dollars.” (Deputy PM—civilian)

“People were always willing to try stuff but bureaucracy got in the way. At higher levels there is more openness. AR created more tolerance for changes. The DoD 5000 Series is looser.¹ Milestone approval process has improved.” (PM—civilian)

¹ The DoD 5000 Series governing acquisition policies and procedures to which the speaker refers are the “revised” versions of DoD Directive (5000.1), DoD Instruction (5000.2), and DoD 5000.2-R, “Mandatory Procedures,” which were issued in 2001 following a lengthy revision process of the prior 5000 Series, which took place in the late 1990s and early 2000s to update DoD acquisition policies and procedures in light of the AR developments and initiatives in the 1990–2001 period. On October 30, 2002 (after all our project interviews had been completed), all three documents in the 2001 version of the 5000 Series were canceled at the direction of the Deputy Secretary of Defense, following his decision that the series still required further revision “to create an acquisition policy environment that fosters efficiency, flexibility, creativity, and innovation.” In October 2002, as result, the 2001 5000 Series was replaced by interim guidance consisting basically of compressed versions of the 5000.1 Directive and the 5000.2, Instruction (with some revision), and an interim “Handbook” (no longer “mandatory”) consisting of the prior 5000.2-R document, that PMs could refer to at their discretion as a source for understanding “best practices, lessons learned, and expectations.” The Deputy Secretary further directed that the *official* revised version of the 5000 Series—i.e., one that would be final rather than interim—was to be pre-

"The AR movement has at least 'raised consciousness' about the need to do things differently." (PM—military)

"DAU is teaching and preaching AR—I heard it when I took 400 executive-level course—although most DAU instructors don't have a clue about what PMs actually spend most of their time on each day." (PM—military)

"In my first program I had to do a bazillion reports; now I can do a single report with MIPS [Modified Integrated Program Summary]." (PM—military)

"Best-value contracting is the important thing that AR has accomplished—making it much easier for me to pick the contractor who [my experience tells me] will deliver the right mix of technical, management, and cost performance. I also like horizontal technology insertion and blocked acquisition." (Deputy PM—civilian)

"Elimination of mil specs, reduced CDRLs [Contract Data Requirements Lists], electronic processing, and the credit card have helped get rid of red tape." (Deputy PM—civilian)

"Alpha contracting is good." (Deputy PM—civilian)

"Alpha contracting is good—need to do more of that." (PM—military)

"Alpha contracting has been helpful because it works to build a team and joint effort." (PM—military)

"Single Process Initiative is a great idea that works! We used it in the ____ program to reduce five separate welding processes to a single process." (Deputy PEO—civilian)

"Other Transaction Authority is helping with FCS." (Deputy PEO—civilian)

"The Purchase Card program has been very good—should be increased again." (Deputy PEO—civilian)

"Post-award briefing, greater use of parametric cost estimating, multi-year contracting, use of commercial warranties, alternative dispute resolution, best-value contracting, reduced CDRLs, revised cost and pricing thresholds, and Cost and Schedule Reporting Standards Tailored to Industry Guidelines have all been helpful." (Deputy PEO—civilian)

"Cost as an Independent Variable (CAIV) has been helpful because it formally recognized something PMs have always had to do, which helped make it more acceptable." (PM—military)

"Spiral development is a good thing—it has forced the warfighter to look at and understand the technology." (Group interview)

"Capabilities-based acquisition is good because it can be effective in holding back the performance greed that continues to plague the Army." (Group interview)

"An improved nonadversarial relationship between industry and DoD (including the Army), characterized by open communication and communication across stovepipes in both industry and DoD, and an emphasis on trust." (Industry)

"Better and healthier senior level communication." (Industry)

"It has worked in 'bits and pieces.'" (Industry)

"There is more openness now than in the past (at least in the contracting area)." (Industry)

"[Greater] use of performance specs, introduced by Perry. Tell me what you want, not how to do it." (Industry)

"Performance Contracting, eliminating [unnecessary] mil specs, saying what you want, not how to get what you want, has saved the most money, and been successful, but only for new programs." (Industry)

"Use of Evolutionary Acquisition, a natural follow on to early Acquisition Reform." (Industry)

"Army support for CMM and CMMI." (Industry)

"[Program x is] one of the better Army efforts. When the contractor went to SPI, the Army didn't think it was going far enough." (Industry)

"Attempts to create TSPR." (Industry)

"There has been an improvement in the use of past performance data as a criterion for contract award. The sharing of the DoD evaluations benefits the contractors; it provides steering signals for how to improve. The contractors are provided an opportunity to make any explanations and suggest corrections and are provided the DoD evaluations for this purpose." (Industry)

"The Army has generally—but not always—done well with Alpha Acquisition." (Industry)

"The Army is good at stimulating innovation in some instances, particularly in encouraging the participation of nontraditional military suppliers." (Industry)

"IPTs that involve government and industry representation are working." (Industry)

What Has Been Bad About Acquisition Reform?

"No formal processes or mechanisms exist that allow PMs to budget for risk. (Example of risk-mitigation mechanisms would include: resources, provisions in contracts, allowances for schedule slips, and allowances for new-technology risk.) The contracting side makes provisions for 'management reserves'—why can't the government side?" (PM—military)

"We reformed the acquisition process but not the financial process that supports it." (PM—military)

"Financial management—color of money—is a problem." (Deputy PM—civilian)

"Recapitalization—PMs don't control the money. Next year the promise is to send money directly to PMs, but that decision has been delayed a year already, so people are skeptical as to whether it will really happen." (Group interview)

"We're told sustainment is fully funded, but PMs never see the dollars because of the route the money takes on its way to PMs. A smart PM only goes after a small portion of life-cycle control and lets the rest go. Too hard to try and do it all." (Group interview)

"Neither the operational nor the acquisition community has kept pace with the realities of risk management to get things faster, better, cheaper. Instead, PMs are viewed as 'toads in the road' who are always just asking for money." (PM—military)

"AR gives PMs authority to take risks but not the resources." (Deputy PM—civilian)

"Alpha contracting can take longer because of resource constraints: e.g., unless and until the system hires more contracting personnel (which would take additional resources), you may have to wait longer before contracting personnel can come to the meetings." (PM office Division Chief—civilian)

"Before AR, the acquisition process proceeded in 'serial mode' [step-by-step], because it was expected to be a 'no-risk' process. Under AR there is a more dynamic and uncertain environment, hence more risk. The problem is that many of the 'rice bowls' are still either unwilling to accept that risk or are unwilling to provide the additional resources needed to create mechanisms to address it." (Example: new supplier providing an engine component with new design and new technology (hence risk), but the program was not allowed to have a backup plan or given the additional resources that would be required to revert to the previous, old-design component, if the new component didn't work out.) (PM—military)

"AR has been good at cranking out policies, but hasn't made anything faster, better, or cheaper." (Group interview—statement by one senior person (Deputy PEO), but the entire group, even after being challenged by Arroyo researchers, supported the statement.)

"There is no such thing as acquisition reform. We've changed the way PMs deal with contractors, but nothing else has changed." (Group interview)

"The AR idea of 'partnerships' with industry is unrealistic. It's like buying a car. When you buy a car, the salesman is not really your 'partner.' He is in it to maximize his profit, while the buyer just wants to get the best value." (Group interview)

"Individual PMs have achieved some very impressive savings, but this has come from traditional leadership techniques." (Group interview)

"AR has hardly touched 'big acquisitions.' CAIV is not really new, for example—we've always had to manage cost. Where we've needed to, we've done stuff. I did a letter contract once to buy 4,000 ____'s." (PM staff—civilian)

"Program ____ is a perfect example of evolutionary acquisition (EA)—long before EA got a name. PMs are not limited now in upgrading—money is the issue. The question is funding to do evolutionary development." (Group interview)

"Some initiatives—like simulation and modeling—are just buzzwords." (PM—military)

"PMs and PEOs (the action agents) have 'gotten' AR, but many others in the decision chain haven't." (Group interview)

"Too many people can say no." (PM—military)

"Acquisition reform only resides within the PM/PEO community—too many other rice bowls are still intact." (Group interview)

"AR will remain suboptimized until they reform the financial, logistics, test, engineering, contracting, and legal communities. These communities can unilaterally kill any AR program, since they have full veto authority in most cases, while not being held accountable for their decisions. Program ____ was a good example of a significant AR effort conflicting with financial, logistics, and legal policies. The Multi-Year I and II approaches in that program are perfect examples where additional testing was still required, after the engineering community signed up to qualification by similarity. You can't have true acquisition reform without reforming all the other agencies involved in the process." (Written comment—prepared ahead of time and submitted at the end of the group interview.)

"The testing community is still in the old ways of doing business—especially operational (vice developmental) testers. We need to take advantage of new technology, but laws on live-fire testing are impeding." (PM—military)

"The test community is still living 30 years in the past. Modeling and simulation won't help until you get the testers out of the way." (Group interview)

"Much more AAR education is needed for testers and auditors. As it currently stands, they can be a real hindrance by rejecting any attempt to implement a particular AAR. They can quickly frustrate a PM with lots of their 'good' or 'time-saving' ideas." (Group interview)

"During the M270 MLRS development, over 300 rockets were fired to qualify the launcher and the pods. HIMARS is just the M270 'on wheels' (no change in launcher or pods), but the testing community still wants to fire over 700 more rockets to qualify the HIMARS launcher."

"IPTs are not working. There are too many IPTs. (We put a man on the moon without an IPT!) IPTs are too large and contain too many people who are unempowered to make constructive decisions, despite the 'rule' that they are supposed to be empowered. Empowerment is only in the negative direction: people feel free to say no, but not to agree. IPTs just exchange information because decisions cannot be made, so they end up being a waste of time, with lots of suggestions made, but few concrete steps ever taken. They (i.e., outside organizations, as opposed to PMs) get to

dictate the IPTs (i.e., decide who will attend from their organizations)." (Group interview)

"IPTs were created to limit the number of reviews. They worked at first because people were empowered, but slowly that has gone away, and thus the purpose of IPTs has been defeated." (PEO—military)

"The test community is still focused on their reporting requirements rather than testing to fix." (PM—military).

"Despite raised consciousness, many middle-level management in OSD have not gotten their act together on AR. I have an average of one battle a week with them. Example: I wanted to set up a multi-year contract for low-rate production of 94 items: 34 in 2003 and 60 in 2004. Even though it was 14 months to the completion of the first item in 2003 under the one-year contract, the middle-management types would not allow a 2-year contract, which would have saved \$40 million, with absolutely no risk (except for termination risk of \$18 million). The Assistant Secretary had to intervene to make it happen." (PM—military)

"It's not the acquisition chain that's the problem—it's the support chain that is still throwing up roadblocks and restrictions: loggies, comptrollers, contracting, DCMA (Defense Contract Management Agency), engineering..." (PM—military)

"If evolutionary acquisition is going to work, PEOs will need to work with the requirements people to get them to understand and cooperate." (PM—military)

"In aviation acquisition, you cannot have reform without taking into consideration the way the Airworthiness Release Authority functions. Their system has gatekeepers with power to disagree or reverse their earlier decisions at any point along the way. Empowerment is out of the question. So it does not matter what the guidance or the contract says, you either have to do it their way or no way. Without their permission, the aircraft cannot fly no matter what the documents say." (Written comments prepared ahead of time and submitted at the end of the group interview.)

"Government lawyers and contractors are very conservative—they feel their job is to keep people out of jail. Example: Contractor Logistics Support (CLS) for ____: needed to start CLS in EMD (Engineering and Manufacturing Development), but approval was not received until three years after fielding." (Group interview)

"Procurement/contracting needs to look at its internal processes." (Deputy PM—civilian)

"Performance-based acquisition (PBA) changes PM/contractor relationships. PBA was sold as a way of saving money and improving schedule, but we don't see either." (Group interview)

(In answer to a question from Arroyo researchers) "It's very difficult to go up the chain to overcome the resistance to doing something. In most cases, you would have to go all the way up to the Army Acquisition Executive (AAE) before you could find a common boss to resolve problems—so we don't do it." (Group interview)

"The decisionmaking process at DA is broken. Takes too long, everybody wants perfect information, and all are afraid to make a decision. Prep for an ASARC [Army Systems Acquisition Review Council] is practically not worth the effort. PEO staffs can't fight all the battles with agencies that have veto power—PMs need to do that. IPTs were supposed to make this better, but no one is empowered, or worse, people don't show up for IPT meetings. DA still isn't fundamentally interested in fielding things—it's still too process oriented." (Group interview)

"Command implementation of AR creates a top-down direction without full realization of the repercussions at the implementation level. Need a buy-in by all who might be affected. Example: PM has total responsibility for total life-cycle management, but no authority or resources to implement." (Written comments from the logistics division of a PM shop—submitted at end of group interview)

"DoD infrastructure and support system tools (data base systems) need to be revised or scrapped to accommodate any implementation of any type of reform. Example: Data base systems developed in the 1960s are still in effect and design will not accommodate change. Commodity Command Standard Systems (CCSS) material management systems. DFAS financial system. Transportation management system." (Written comments from the logistics division of a PM shop—submitted at end of group interview)

"Implementation of acquisition reform or any innovative acquisition process other than the legacy acquisition system requires review, changes in policy, regulations, and laws. Example: Legacy acquisition policies such as engineering, logistics, testing aspects of contracting have not changed to support Performance Specifications." (Written comments from the logistics division of a PM shop—submitted at end of group interview)

"DoD legacy support systems such as your financial, legal, and contracting structure does not allow implementation of reform without changing the regulations and laws—like the depot 50/50 rule and the FAR/DFAR regulation and competition advocate." (Written comments from the logistics division of a PM shop—submitted at end of group interview)

"We're 'capping out' people too soon (e.g., deputy PEO is basically the highest a civilian acquisition professional can go), which makes it harder to get and keep good PMs." (Deputy PEO—civilian)

"After 31 years of experience, I'm not being used in a way that allows me to help programs or keep them from making mistakes. I'm only an 'advisor,' I do try to influence and persuade when I have the opportunity or am asked, but I'm not in the real decision loop, and that is very frustrating." (Deputy PEO—civilian)

"Acquisition has a people side and a process side. On the people side, the 'acquisition corps' is about 12 years old. Why did we do that? As the Vietnam War ended, a lot of military began coming into acquisition and they needed to be trained—so we created an Army MOS [Military Occupational Specialty] for acquisi-

tion, and there were good opportunities for upward mobility. But then, as we began to reduce the number of military, acquisition became more civilianized, but we continued to train and evaluate and compete civilians like we had done for the military. But civilians are different from military and should be used and managed in ways that takes better advantage of their experience.” (Deputy PEO—civilian)

“Before AR, the acquisition process was like sending a kid to high school—you could control not only what they did but how they did it (where to go, when to be there, when to be home, when to do their homework, etc.). After AR, acquisition is like sending a kid to college—they [contractors] now have far more freedom to get into trouble. Many contractors would have liked to keep mil specs because they are having trouble implementing the discipline to handle their new responsibilities.” (Group interview)

“Contractors don’t always like the performance-based approach (versus mil specs) because it introduces uncertainty. Also they can’t control Government Furnished Equipment (GFE).” (PM staff—civilian)

“Mil specs helped definitize Technical Data Packages (TDPs), but under AR they have not been maintained, so they are now seven to eight years out of date.” (Group interview)

“Dictating the use of performance specs (i.e., insisting that PMs must *always* use the performance-based approach (versus mil specs) is *not* ‘increasing PM flexibility.’” (Deputy PM—civilian)

“We need to be careful—you may be sending the wrong signals. We always used to teach cost, schedule, and performance together. Then performance became king and we traded schedule to get performance. Now we have ‘CAIV’ and a fixed schedule and are sacrificing performance. We’re ‘empowering’ people but not letting them come back and trade among cost, schedule, and performance. Schedule is now king—evolutionary acquisition will sacrifice performance and cost.” (Deputy PEO—civilian)

“The emphasis on streamlining and encouraging innovation has created an environment in which young people now coming into the system, because they didn’t experience the situations that led to the rules, regulations, and laws, don’t have a basis for understanding the right way to do things and where to bend the rules.” (Deputy PEO—civilian)

“The human factor: some in the acquisition community will always be ‘B’ and ‘C’ players, and those folks need to be given tools (rules and regs) so they can do things by rote.” (Deputy PM—civilian)

“We’re now seeing the impact of some bad choices about specs. Commercial specs and products are changing all the time, so sometimes we need to pick and choose.” (Deputy PEO—civilian)

“I am really troubled about the requirements process—and the need for material developers and combat developers to work together. All kinds of taxpayer dollars

are going to be spent poorly in the next five to seven years because of the way things are being done now. I was the deputy PM for the ____ system, so I know how to do AR the right way.” (Deputy PEO—civilian).

“The contract for ____ is an embarrassment. The contract wanted to have everything quick, so it was vague, and we are now spending dearly for that vagueness. The contractor is now making money on that vagueness—using the vagueness to do changes—so the vagueness is working to the contractor’s benefit, not the government’s. Legal and contracting vagueness will always go in favor of the contractor. What is being developed today is not what I thought we were buying a year ago. Is schedule so important that it should trump everything else (cost and performance)?” (Deputy PEO—civilian)

“Because my predecessor had to get something out in 13 months, we’re now having to go back and ‘definitize’ the contract, so we’re paying a price—although this may have been as much a people issue—building a contract by committee—as a time issue.” (PM—military)

“New government workers will either be taught the old way or will be too innovative without a baseline.” (Deputy PM—civilian)

“With performance-based contracting and elimination of mil specs, we went from ‘too tight’ to ‘too fluffy.’” (Deputy PM—civilian)

“Lots of regs are gone, but it’s not clear things are taking less time as a result because other, different things are taking time to decide because we don’t have the regs and specs to fall back on automatically. We’ve gone from ‘too much’ to ‘too little.’” (PM staff—civilian)

“Lack of experience in PM shops is a problem.” (PEO—military)

“Having to do A-76 competitions has been a problem; it’s tied things up and been more of a hassle than a help in getting things done.” (Deputy PEO—civilian)

“Government lawyers and contracting officers are still very conservative—feel their job is to keep people out of jail. Example: Contractor Logistics Support (CLS) for program ____ needed to start in Engineering and Manufacturing Development (EMD) phase, but approval was not received until three years after fielding.” (Group interview)

“We don’t use OTs (Other Transaction Authority)—nobody is trained.” (Group interview)

“Loss of mil specs has been good and bad: Missiles are good systems for not having mil specs. They are stored ‘as-is’ until used, at which point they either work to the performance spec or not. Fire control systems require maintenance and upgrade over their lifetimes, however, so having mil specs is useful.” (Group interview)

“____ was a legacy system with a TDP [technical data package]. ____, [later version] however, was built to performance spec, but having the TDP on the older system helped make ____ [new version] possible.” (Group interview)

"Requirements get developed by senior people and IPTs but then the responsibility for assembling the contract is handed off to a junior officer who now has to get something out fast—setting the stage for necessary contract mods later." (PM—military)

"The PM doesn't get to rate the contracting officer." (PM—military)

"We try to take IPT's too far; there are differences between the government and contractors that have to be recognized. At some point the government has to be in control. Government role is to manage, not do, the contract. Example given of an industry counterpart to Army PM who felt *all* decisions, including those not covered by contract, had to be approved by the IPT of which the industry PM was a member." (PM—military)

"I'm not sure alpha contracting is all that great. The contractors are not laying all their cards on the table." (PM—military)

"Alpha contracting is not helping to shorten cycle time. It's taking resources that weren't required before. Lots of things that used to be more automatic now must be discussed, and that can take additional time and resources, like when you try to do contract pricing concurrently with requirements development." (PM staff—civilian)

"We have junior people in contracting making decisions worth millions—whereas on the requirements side it required an executive decision." (Deputy PM—civilian)

"Things are taking longer now because extra effort must be expended to maintain a good process. It's also taking resources that weren't required before. Alpha contracting is not helping to shorten cycle time, since lots of things have to be discussed and it takes resources to work properly—like contract pricing while still doing requirements." (PM staff—civilian)

"Procurement and contracting needs to look at its internal processes." (Deputy PM—civilian)

"Often what elimination of mil specs and performance-based acquisition (PBA) saves in up-front costs gets eaten up by increased maintenance and logistics support cost later. PBA results in no Technical Data Package (TDP) being developed and the logistics community was not brought along. This has resulted in difficulty getting long-term system support, since we can't compete buys of spares. [Before PBA, a PM could use the standardized manufacturing specs contained in the TDP to obtain bids from potential suppliers of spare parts.] This in turn implies Contractor Based Logistics. Contractor providers will only stay in the parts business for a while, though. It will become unprofitable for them after a while." (Group interview)

"Contractors are making a mint. And support for new systems, when they become legacy systems, is going to suffer, because the contractors won't be there and the organic capability will have withered away." (Group interview)

"Acquisition reform has removed specifications controlled by the government and directed performance-based specification. This has put the government in a sole-source environment without changes to acquisition regulations or data to support future buys. Example: Production and Administrative Lead Time (PALT) increases and no data to support subsystem procurements." (Written comments from the logistics division of a PM shop—submitted at end of group interview)

"Acquisition reform has increased the total life-cycle cost in the sustainment phase of acquisition due to configuration management by the prime vendor and the operations and support costs increase due to sole-source environment." (Written comments from the logistics division of a PM shop—submitted at end of group interview)

"Acquisition reform in some instances has severely impacted the ability to meet Title 10 USC in organic support and meeting core surge capability. Example: Life-Cycle Contractor Support (LCCS) does not address capital investment in organic facilities and no data procured to support their development. Leaves the government to the whim of the prime vendor for support and curtails surge capability in times of need." (Written comments from the logistics division of a PM shop—submitted at end of group interview)

"Total Life-Cycle System Management has not been defined or explained anywhere near well enough to be taken seriously." (PEO—military)

"Reduction in Total Ownership Cost (RTOC) pilot programs are a joke. The Army did not pay anything but lip service to the two pilots, which would have achieved significant reform, Palladin and Apache. The remaining programs are not as encompassing, or rehash methods which offer either minimal or delayed return on investment." (Written comments submitted at end of group interview)

"The PM as Total Life-Cycle System Manager: That will not happen until the mission is no longer fragmented between disparate commands, and funding is consolidated with the PM or accountable manager." (Written comments submitted at end of group interview)

"Performance-Based Logistics: Unless senior OSD and Army leadership force legacy as well as new-start systems to incorporate, it will achieve the same results as RTOC programs. This offers significant opportunities to streamline logistics and meet objective requirements, but we have seen no support outside of the OSD policymakers." (Written comments submitted at end of group interview)

"Recapitalization money—PMs don't have control of the money. Next year the promise is to send some money directly to PMs, but that decision already had been delayed a year, so we're skeptical." (Group interview)

"Need leadership, priority, and funding to make TLSCM work—and we're not getting any of those." (Group interview)

"In the contracting area, some Army organizations favor performance-based payments, while others do not." (Industry)

"The use of past performance as an award criteria process remains a little subjective and sometimes the DoD doesn't select the most appropriate past programs to evaluate for this purpose. Performance-based payments are not working well on every program. 'X' Army center is great. 'Y' Army center is medieval. Can't complain too much for fear of roughing up the customer." (Industry)

"The Army is very slow in its use of acquisition reform as compared to the other services. The Air Force, by comparison, is very rapid, using its 'Lightning Bolts' motif. This contractor never heard of the Army roadshows, the method the Army used to publicize its support for—and practice of—acquisition reform. There is no Army central, guiding point of reference for the implementation of AAR, so nobody—contractors or PMs—has a source they can turn to decide what can and cannot be done in any given situation." (Industry)

"No one at the Army (Commodity) Commands is charged with—or pushes on—AR. The Air Force push is strong and top down. There is no Darleen Druyun in the Army. There have been three sets of lightning bolts since 1996 in Air Force Acquisition Reform.² Army is much more controlled by its long—term bureaucracy, that will outspokenly stonewall a change until its proponent has moved on." (Industry)

"The Army definition of AR is vague, and different from place to place. Uniformity, strong leadership and consistency are needed." (Industry)

"Total Life-Cycle Cost is only given lip service in the Army. It's really the cost of the next phase that is considered in contract award." (Industry)

"IT (Information Technology) is still poorly utilized by DoD (and the Army). AMCOM [Aviation and Missile Command, U.S.Army] uses PADS [Procurement and Assistance Data System] for EDI, but most other commands have a variety of EDI within the commands, and there is no uniformity between commands. (Overall, this company has to use over 30 different EDIs, and spends more on this than the sum of what it spends on IR&D [internal research and development], BE [business engineering], and SE [systems engineering]. The Navy has some uniformity in some programs under Admiral Cowley. The Navy with the Air Force have one CPAR [Contractor Performance Assessment Report] site. The Army has another. The RFPs and their Ts and Cs [terms and conditions] look different across the Army." (Industry).

² Darleen Druyun was the Principal Deputy Assistant Secretary of the Air Force for acquisition and management from 1993 to 2002. During that time, she issued nineteen "lightening-bolt" directives intended to save money and time and bring more businesslike practices to Air Force acquisition. This statement about Druyun and her lightning bolt initiatives was made to us in the summer of 2002, before Druyun's retirement from the Air Force (in December 2002), and well before she pleaded guilty (in April 2004) to conspiring to help the Boeing Co. obtain Air Force contracts while she was employed by the Air Force. For a summary of the Druyun story, see George Cahink, "The Rise and Fall of a Maverick," *Government Executive*, February 15, 2004, available at <http://www.govexec.com/features/0204/0204s1.htm>.

"In many cases, there seems to be significant uncertainty about exactly how AR should be implemented and how it should affect the procurement process and the proposal produced by it . . . we saw the 'lack of uniformity' problem four years ago across DoD, and we still see it today in the Army." (Industry)

"A lack of SE capability in the Army (which they are trying to cover by hiring more and more contractors) is hurting the ability of both sides to work well together, especially when System of System aspects are present." (Industry)

"Acquisition reform is a will-o'the-wisp. It is not fully defined. Insufficient agreement on what the initiatives actually mean. Only bits and pieces of it have been implemented. AR has not been coherently or consistently documented or applied. Bureaucracies in industry and government pick and chose what they want. Initiatives appear to be promoted primarily for public relations effects, and without serious consideration of their institutional effects." (Industry)

"AR, even where considerable efforts have been expended to clarify its application and it is the intent of the PM to use those parts of AR in the conduct of the PM's program, is too frequently defeated by the actions of others, sometimes even the PEOs and OSD." (Industry)

"It [AR] has not penetrated into the depth of the procurement bureaucracy." (Industry)

"Overall lack of experienced PMs to implement reforms, especially concerning systems engineering. They focus too much on external control processes and too little on internal motivation. PMs tend to be execution and not incentive focused. They too often lack experience relative to their responsibilities. They have too limited a staff for their needs and even to execute the TSPR oversight function. They are weak in systems engineering. Industry has to pick up the slack, especially as requirements change." (Industry)

"Industry has to be adequately incentivized to undertake the risks inherent in certain AR initiatives such as TSPR. PMs need more latitude to alter program fee structure in the face of risk and other factors." (Industry)

"The new emphasis on the Capabilities Based Approach and Evolutionary Acquisition make things fuzzier, placing an even stronger demand for quality and adequately experienced PMs. It isn't clear that industrial processes are adequate in the face of these new trends. Evolutionary Acquisition will help, but it has serious configuration management issues that have not been addressed. The old process proceeding from MNS [Mission Needs Statement] to spec had a clear baseline approach. But there is much more uncertainty with the new Capabilities Based Approach. And this approach will fall apart if it can't be imbedded in a spec. Also, there is inadequate mission utility evaluation capability to support the Capabilities Based Approach." (Industry)

"It [AR] lacks importance at the lower or operational level, where the rubber hits the road." (Industry)

"Oversight has to be replaced by insight and partnership." (Industry)

"Need more general objectives versus detailed specs (more design freedom needed)." (Industry)

"Color-of-money issues get in the way of doing the right thing." (Industry)

"Among the services, the Army is the least progressive in promoting and adopting the benefits of Acquisition Reform." (Industry)

"AR initiatives are often evaluated by the very people who will be affected by the reform, which from their prospective can result in a loss of power (e.g., loss of government jobs, change in what government workers do, loss of bureaucratic power). This results in dilution of the reform." (Industry)

"The Army allows contractors little freedom in their choice of [Earned Value Management] tools, insisting on the standard the Army prefers. The Air Force provides its contractors more freedom." (Industry)

"The Army's attitude re EDI standards for configuration management are counterproductive. After first resisting such standards, the Army now appears to be reluctant to use those generated by the EIA on behalf of the DoD." (Industry)

"AAR staff and Army PEOs/PMs are at odds re AAR. The PEOs/PMs focus on near-term deliveries per contract and consider any AAR efforts—despite their long-term payoff—as counterproductive and advise their contractors to avoid them. This was most apparent in the recent (Spring 2002) AALT [Army Acquisition, Logistics, and Technology] conference on risk management best practices. PEOs/PMs have little incentive to support AAR." (Industry)

"Everyone talks spiral/evolutionary development without knowing how to do it." (Industry)

"A general feeling of distrust still exists from the contractor's perspective in government/contractor contractual relationships. Contracts drive AR, not PMs. And the contract community is different and often at odds with—certainly independent from—the PM/PEO community. If you want true AR, reform the contracts folks." (Industry)

"This contractor was outraged that the Army chronically underfunds its programs, requiring it to carry large PCAs [contractor pre-contractual funding of Army programs – "pre-contractual arrangements"] at high risk in the (increasingly likely) event of cancellation or reduction of future year funding necessary to pay back the PCAs. AR, by increasing potential risk to defense contractors, may reduce contractor willingness to invest in long-term defense projects. This unintended and undesired result of AR is changing the way we think about investment decisions." (Industry)

"The performance-based payment process needs more flexibility, however, as programs change (and there could be more of this under spiral development), it is sometimes difficult to get the Army to make corresponding changes in the payment milestones." (Industry)

"Performance-based payments are not working well on every program. 'X' Army center is great. 'Y' Army center is medieval. Can't complain too much for fear of roughing up the customer." (Industry)

"In many instances the Army causes contractors to fund development contracts by underfunding or back-loading the funding stream provided to the contractors. Under the Anti-Deficiency Act, the DoD CO [contracting officer] must identify the source of funds needed to accomplish the program and this requires the contractor to propose (or utilize) a CPIF [cost plus incentive fee] format, which in the end causes the contractor to lose fees because the only place where the funds can be obtained is in the incentive pool which is thereby lost—or partially lost—to the contractor." (Industry)

"The Army's Objective Force Warrior RFP (DAAD16-02-R-0004) was an "845 Other Transaction." The regulations pertaining to 845s state that unless a nontraditional contractor is participating to a significant extent in the prototype project, then either (i) at least one-third of the total cost of the prototype project is to be paid out of funds provided by the parties to the transaction other than the federal government, or (ii) the senior procurement executive for the agency determines in writing that exceptional circumstances justify the use of a transaction that provides for innovative business arrangements or structures that would not be feasible or appropriate under a procurement contract. At the same time, the government's guide on OTAs for Prototypes, dated 21 December, states, "Generally, the government should not mandate cost sharing requirements for defense unique items, so the use of OT authority that invokes cost-sharing requirements should be limited to those situations where there are commercial or other benefits to the awardee." In addition, the Army is a partner in the FCS program with DARPA. The DARPA FCS RFP (number PS 02-07) is also an "845 Other Transaction." (Industry)

"The government has expectations about how AR is supposed to produce things 'better, faster, cheaper' but many in the government still aren't willing to tolerate the additional risk that sometimes accompanies that." (Industry)

"AR is making it more difficult for a contractor to win when it's bidding to be a sub to a prime, because even though the old process was 'objective' to a maddening degree, under AR, primes are exploiting the subjectivity [e.g., in best-value contracting], allowing them to be more capricious and able to limit competition to their internal sources." (Industry)

"In many cases, there seems to be significant uncertainty about exactly how AR should be implemented and how it should affect the procurement process and the proposals produced by it. . . we saw a 'lack-of-uniformity' problem four years ago across DoD, and we still see that problem today in the Army." (Industry)

"Congress is a wild card and upsets reasonable plans." (Industry)

"OSD senior leadership is entrenched [that is, at any one time its position is invariant] and does not have AR as a strong priority. In addition, it is transient, and has

a transient culture [that is, over time its players change and have had different viewpoints]; new players are not obliged to follow prior policies." [Comments added for clarification.] (Industry)

"AR, even where considerable efforts have been expended to clarify its application and it is the intent of the PM to use those parts of AR in the conduct of the PM's program, is too frequently defeated by the actions of others, e.g., sometimes the PEOs and OSD." (Industry)

"AR demands new relations between contractors and the DoD that remain difficult to implement within the rank and file of the bureaucracy. These include new levels of coordination and cooperation." (Industry)

"PA&E and the keepers of the FYDP and PPBS are indifferent to AR outside of their stovepipes, and to the needs of the Army PMs. They have their own interests that are often adverse for AR, and act in ways that destabilize programs by inhibiting efficient dollar flow. They are reluctant to accept changes from outside of the financial stovepipe that interfere with their accustomed way of doing business." (Industry)

"Independent test agencies provide inconsistent advice without regard to the specifications provided in the contract." (Industry)

"SPI [Single Process Initiative] has failures, due to resistance from DoD lawyers and the Congress that wanted consideration in the present from contractors for changes that would permit lower future cost of business." (Industry)

"Legal rulings prevent catalogue sales of military items where such would lower cost of sales. The definition used for catalogue sales is too restrictive." (Industry)

"There is a failure to widely utilize commercial packaging because various DoD service components could not agree on common packaging." (Industry)

"There is a failure of the DoD service components to agree on common commercial configuration management standards and tools." (Industry)

"Color-of-money and congressional politics remain a barrier to flexibility." (Industry)

"Insufficient cultural, organizational, and intellectual changes [have taken place] in the DoD as implicitly required by AR." (Industry)

"It may be that the problems in acquisition are really rooted in the personnel system. There are no 'upside' benefits if someone tries to be innovative—only 'downside.'" (Industry)

"Not only does the way personnel are evaluated, rewarded, and promoted need to be considered—you also need to train and equip them to do what you want them to do with acquisition challenges like the FCS—and that job hasn't been done yet." (Industry)

"What are the career goals for people? Warfighters and professional acquirers have different goals and respond to different incentives. Civilian deputies are always under the thumb of others calling the shots—they get to perform in advisory roles at best." (Industry)

"Most companies kept the mil specs because they didn't have anything to replace them." (Industry)

What Would You Change About Acquisition Reform?

"Get the middle-management support guys on board." (PM—military)

"If evolutionary acquisition is going to work, PEOs will have to work with the requirements people to get them to understand and cooperate." (PM—military)

"Need to reform the requirements process—and I'm not just talking about KPPs [Key Performance Parameters] in the Operational Requirements Document. PM needs to be able to say: I want some trade space. Need trained professionals—currently just taking warfighters off the street. Trying to put too many requirements in." (PM—military)

"Reliability is going to kill the FCS. Need to learn to 'test to fix' rather than 'test to report.'" (PM—military)

"PMs need to be able to control who comes to IPTs and have only empowered people come to IPTs." (Group interview)

"Educate the auditors and testers about the principles of AR." (Group interview)

"Those performing oversight should have to have experience in a project shop." (Group interview)

"Need to reestablish the balance between cost, schedule, and performance, so as not to send the wrong signal to the acquisition corps." (Deputy PEO—civilian)

"Need to build thresholds into Nunn-McCurdy—if we could get changes in the perception of risk, we could handle these crises better." (PM—military)

"Many statutes have not changed. Have Congress change the laws and regulations that are still fundamentally at odds with AR." (Group interview)

"Acquisition Reform inhibitors: need to change law or just working the edges; need to change how funding is done. Example: ____ program subsidizes everything at ____ (Major Subordinate Command), so the incentives are to keep selling parts [to that program] and not let them fix the parts." (PEO—military)

"The financial system has to change if the PM is to be responsible for life-cycle management. The price for parts is supposed to cover the cost of obsolescence, so if my system is accounting for X percent of sales, it ought to get X percent of the investment dollars being collected—but it doesn't." (PM—military)

"PMs definitely need authority to use production funds for product improvements. We need flexibility to adjust blocks in the middle. Blocked acquisition must be flexible enough to allow changes during development and production." (Deputy PM—civilian)

"My system has products in all phases of the life cycle: ____ fleet is being produced; while ____ is in a Software Enhancement Program, but color-of-money restrictions prevent me from spending where it makes the most sense." (PM—military)

"DoD PPBS systems and policies must be reviewed and changed to shorten the [Program Objective Memorandum] budget cycle to accommodate any acquisition reform implementation with the ability to reprogram resources. Example: Advance-in-technology changes cannot be accommodated or inserted in a timeframe to meet milestone decision memorandum and funding timelines." (Written comments from the logistics division of a PM shop—submitted at end of group interview)

"If the PPBS doesn't change, then AR isn't complete." (PM—military)

"PMs need to learn how to 'play' in the sustaining spares arena—i.e., go to the meetings and use their leverage as customers to influence allocation of Major Subordinate Command O&M dollars." (PM—military)

"AR requires resources if PMs are going to do new things." (Deputy PM—civilian)

"If OMA [Operations & Maintenance: Army, a congressional appropriations category] were fenced, there's a chance ACQ organizations would be able to gain control of that money—but if you do it with OMA for spares controlled by ASA(FM) [Assistant Secretary of the Army for Financial Management] for the big [Major Subordinate Command] costs, it will be very difficult." (Deputy PM—civilian)

"Back up initiatives with sufficient funding to carry them out." (Group interview)

"Would the Army benefit from forming an internal systems engineering capability? No. Research, Development, and Engineering Centers (RDECs) have become a 'body shop' with no commitment to core competencies and mission. This initiative would only result in more funding for internal job programs with little responsibility for system support." (Written comments submitted at the end of group interview)

"In complex systems involving high numbers of lines of code and multiple subsystems, it is important the prime remain the integrator. The government has neither the capability nor the motivation to accomplish this effectively." (Written comments submitted at the end of group interview)

"Acquisition Demos' are not a good way to document the accomplishments of civilian personnel. Hurts selection for PM, DPM, DPEO." (Deputy PEO—civilian)

"Deputy PEOs need to be in the rating chain for military PMs." (Deputy PEO—civilian)

"Effectiveness of various reform measures should be tracked and evaluated, and pilot programs established where risks are high, and no tracking system is now utilized that I am aware of. Center of Excellence could be effective, would need more data on this. PMs do a good a job of reform as possible, but they need to be applied

to the Army Materiel Command (AMC) sustainment and spares acquisition process also." (Written comments submitted at the end of group interview)

"Try to prototype initiatives first, then implement Army-wide." (Group interview)

"Questions to determine effectiveness: How long has a reform survived? Has it been institutionalized? (PEO—military)

"Agreement between government and industry re what are the Acquisition Reforms in DoD and contractor language." (Industry)

"Put out policy (not just guidance) in advance for coordination with industry and others. Policy statements should not say 'how to.'" (Industry)

"Put out guidance and policy together. Train each [contracting officer] each time a new policy is put out." (Industry)

"[Increase the] uniformity of practices/procedures." (Industry)

"A clear statement from DoD that there will be no fixed price development." (Industry)

"Enforcement of reforms in place." (Industry)

"Implementation of successful reforms." (Industry)

"Greater empowerment and training/education of project managers." (Industry)

"Provide adequate funds up front so that the contractors do not have to invest their funds or sacrifice fees to maintain adequate cash flow to carry Army programs." (Industry)

"Greater managerial and training resources devoted to the enforcement of the initiatives within the DoD." (Industry)

"Encourage prime vendor support where possible." (Industry)

"Use TSPR on programs where the prime can control the key factors—and not elsewhere." (Industry)

"Primes as TSPRs can deprive subs of their intellectual property. Do not allow this." (Industry)

"Enforce competition at the subcontractor level where appropriate to prevent vertically integrated primes from inserting their own technology where inferior." (Industry)

"Need more funding stability and multi-year contracts." (Industry)

"Need to examine incentives and penalties to change the DoD culture. Keep incentives simple. Consider other types of incentives too, like ego, recognition, job enrichment, etc." (Industry)

"There is a need to make development more profitable because production quantities keep changing and provide no safe haven for contractors to realize profits lost in development." (Industry)

"There should be sufficient profits in R&D, without profit realization dependent on production. Provide incentives for companies to invest in new technologies. Cost plus contracting helps, but if the technologies strongly relate to specific pro-

grams, and their future is uncertain, or destined for low profit margin, more must be done. If there was no ROI or IRR that met the cost of capital, [don't force contractors to invest]." (Industry)

"There needs to be more . . . multi-year funding and financing." (Industry)

"Incentivize contractors by improving compensation terms. Government thought that they would place all responsibility with industry, but that didn't work because industry was not compensated for the risk it was asked to undertake." (Industry)

"Do not insist on unlimited rights to technology funded by contractor R&D. In most instances rights for government use are inappropriate also" (Industry)

"Improve communications between the contractor and DoD, and use CAIV. Contractor was given a free hand for efficiency, and this was good, but CAIV was not used to track cost, communication with government was lost." (Industry)

"Make the Army more proactive" (Industry)

"Incentivize people in the middle [of the Army management chain] to take risk and change. This is key, because these people can make things happen or not happen." (Industry)

"Get the Army to place a consistent high priority on AAR, and demonstrate that by having high-ranking AAR executives visible and active at key meetings" (Industry)

"Create Army Acquisition Center of Excellence as an institutional (not personal) initiative with adequate resources." (Industry)

"Accelerate the retraining and reculturing of mid-level Army people to change their too often adversarial stance re contractors." (Industry)

"Get those who are in positions of power re AAR and who hold negative attitudes out of the way." (Industry)

"Army needs to remove personnel that refuse to support new initiatives." (Industry)

"Get the PEOs to support AAR." (Industry)

"Contracts drive AR . . . If you want true AR, reform the contracts folks." (Industry)

"There must be a change in the DoD's attitude of oversight to one of insight into the contractor's motivations. There must also be new levels of coordination and cooperation—a real partnership. Such new attitudes are often undermined within the DoD by the "old guard" that believes that fixed-priced contracts, where the entire firm is often placed at risk, are the only way to coerce contractors into meeting their contractual obligations." (Industry)

"More partnering between contractor and government to make spiral acquisition work well." (Industry)

"An Army Center of Excellence with industry participation—a true IPT—with true CMI (pilots and measured results) would be of value." (Industry)

"Where legal, use colors of money with greater flexibility to lower program costs, e.g., shifting program money between related program line items to reduce costs associated with the slip of a critical line item due to funding delays. Preclude lawyers from making too narrow interpretations of this matter." (Industry)

"Value Stream Analysis and Lean Production are significant eliminators of waste. Get more Army PMs to accept this. Some do already." (Industry)

"More lucrative cost-savings rewards [should be provided in contracts]." (Industry)

"Minimize the use of CPAF because AF is subjective, and the criteria are not clearly specified in advance, resulting again in profit minimization." (Industry)

"Congress is a big source of instability and disruption, e.g., continuing resolution and their opposition to multi-year funding. It would help to find a way of damping this." (Industry)

"[Do more] . . . risk analysis in advance to stabilize requirements." (Industry)

"Best-value contracting is subjective and permits contractors to be exploited. This is especially true today where there are few multi-year guarantees. Address this!" (Industry)

"DAU should teach new ways of doing things before they are implemented." (Industry)

"There is a lack of System Engineering capability in the Army and in the contractors. Personnel that have it are retiring and being replaced. This is unfortunate given the increasing emphasis in SoS. Contractors suffer when the government lacks expertise, and [cannot be a smart buyer]." (Industry)

"Increase System Engineering training for PMs and engineers." (Industry)

"Greater empowerment and training/education of project managers." (Industry)

"Greater managerial and training resources devoted to the enforcement of the initiatives within the DoD." (Industry)

"Need system engineering expertise in contracting, [and] PMOs—if you're going to do performance-based contracting." (Industry)

"Better training and education with respect to new acquisition initiatives should be mandatory for older, more experienced DoD personnel." (Industry)

"Open more industry classrooms to DoD personnel." (Industry)

Acquisition Reform Initiative Coverage in DAU Courses

AR Initiative	PM Course Coverage	E&T Course Coverage	L&S Course Coverage	BCF Course Coverage	CON Course Coverage
Commercial sourcing: FAR Part 12 procurements	ACQ 101: yes ACQ 201: yes ACQ 402: yes ACQ 403: yes ACQ 405: yes PMT 202: no PMT 203: no PMT 304: no PMT352: yes PMT 401: yes PMT 402: yes PMT 403: yes	CAR 805: yes IRM 101: no IRM 201: yes IRM 303: yes SAM 101: no SAM 201: no SAM 301: no PQM 101: no PQM 103: yes PQM 104: no PQM 201: no PQM 202: no PQM 203: no PQM 212: no PQM 301: yes SYS 201: no SYS 301: no STM 301: no STM 302: no TST 101: no TST 202: no TST 301: no	LOG 101: no LOG 102: yes LOG 201: yes LOG 203: no LOG 204: yes LOG 235: yes	Covered in prerequi- site courses ACQ 101 and ACQ 201	CON 100: yes CON 101: yes CON 104: no CON 202: yes CON 204: yes CON 210: no CON 301: yes CON 333: yes CON 332: no CON 233: CON 234: yes CON 235: yes CON 236: no CON 237: yes CON 243: CON 244: LAW 801:yes GRTS 201: no IND 101: no IND 102: no IND 103: no IND 201: no IND 202: no

Note: For similar information on DAU course coverage of other AR initiatives, readers may contact Christopher Hanks at hanks@rand.org for listings similar to the one above.

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